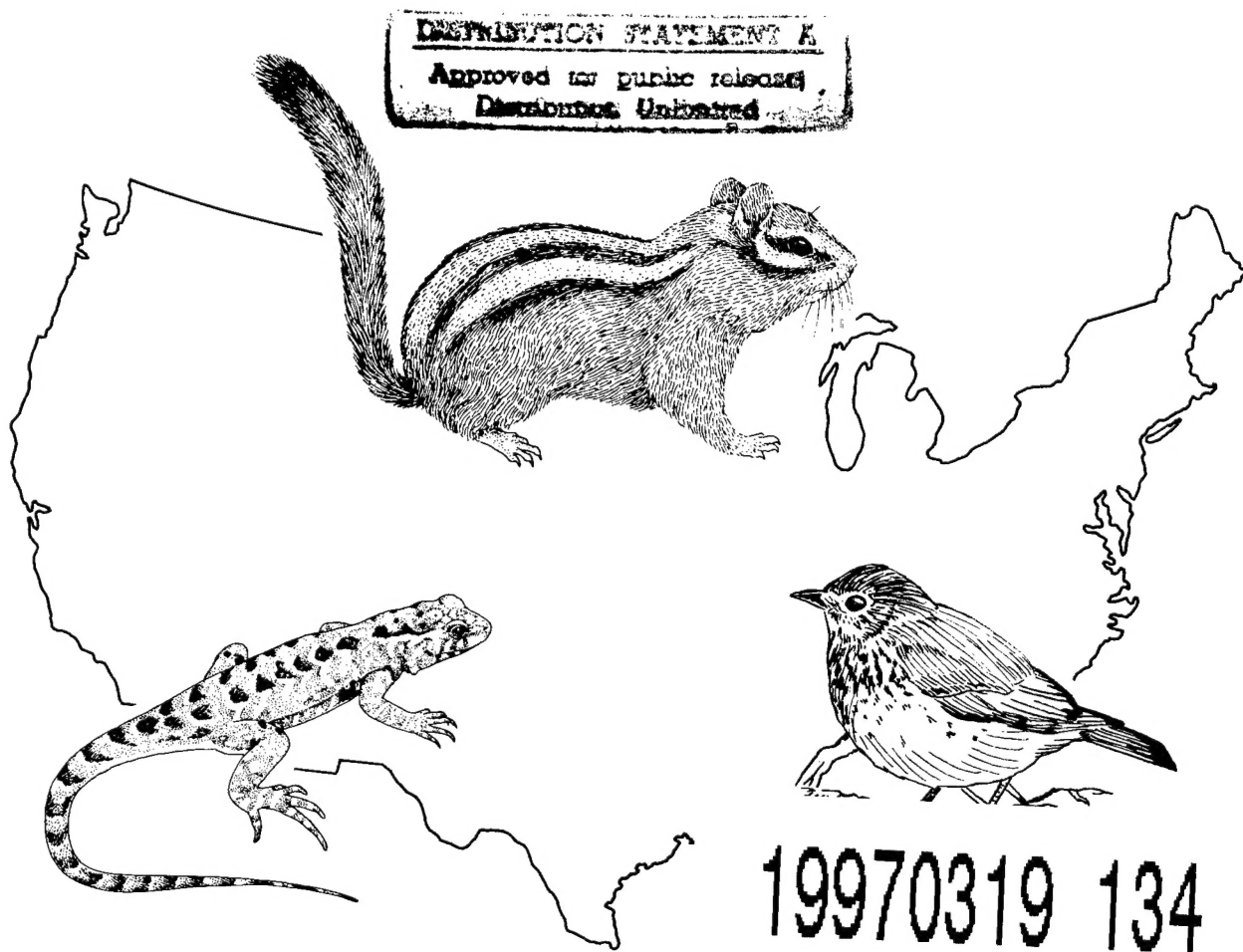


# SUMMARY OF THE REPORT AND RECOMMENDATIONS ON FUNDING SOURCES TO IMPLEMENT THE FISH AND WILDLIFE CONSERVATION ACT OF 1980



Fish and Wildlife Service

**U.S. Department of the Interior**

Credit is given to Jennifer Shoemaker, who designed and produced the cover for this report. The side-blotched lizard and the yellow pine chipmunk drawings used in the cover illustration were prepared by Ellen Blouder and originally appeared in J. Verner and A. S. Bass. 1980. California wildlife and their habitats: Western Sierra Nevada. U.S. For. Serv. Gen. Tech. Rep. PSW-37. 439 pp.

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SUMMARY OF THE REPORT AND RECOMMENDATIONS ON FUNDING  
SOURCES TO IMPLEMENT THE FISH AND WILDLIFE  
CONSERVATION ACT OF 1980

Prepared by  
U.S. Fish and Wildlife Service  
Robert A. Jantzen, Director

For  
Committee on Environment and Public Works  
of the U.S. Senate  
and  
Committee on Merchant Marine and Fisheries  
of the U.S. House of Representatives

As required by  
Section 12 of the Fish and Wildlife  
Conservation Act of 1980

Fish and Wildlife Service  
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## CONTENTS

	<u>Page</u>
FIGURES .....	v
TABLES .....	vi
ACKNOWLEDGMENTS .....	vii
INTRODUCTION .....	1
BACKGROUND .....	2
PURPOSE AND SCOPE .....	4
METHODS AND CRITERIA .....	6
Funding Potential .....	6
Economic Efficiency .....	6
Benefits Received .....	8
Ability to Pay .....	9
Consultation Process .....	9
ANALYSIS OF POTENTIAL FUNDING SOURCES .....	11
Annual General Fund Appropriation .....	14
Potential Excise Tax on Wild-Bird Seed .....	14
Potential Excise Tax on Wild-Bird Products .....	16
Potential Excise Tax on Wild-Animal Furs .....	18
Potential Excise Tax on Backpacking and Camping Equipment .....	19
Potential Excise Tax on Off-Road Vehicles .....	21
Potential Excise Tax on Binoculars and Spotting Scopes .....	23
Potential Excise Tax on Wildlife Identification Books .....	25
Potential User Fees on Federal Lands .....	26
Potential Voluntary Checkoff on Federal Income Tax Returns .....	27
Potential Sale of Semipostal Stamps .....	28
Potential Excise Tax on Recreational Diving Equipment .....	29
Potential Excise Tax on Selected Photographic Equipment and Film .....	30
Potential Assessment of Charges Related to Extraction of Certain Locatable Minerals .....	32
Potential Excise Tax on Travel Trailers and Campers .....	34
Potential Excise Tax on Motorhomes .....	36
Potential Tax or Fee on Developers .....	37
SUMMARY OF RESPONDENTS' VIEWS ABOUT THE POTENTIAL FUNDING SOURCES ....	41
General Fund .....	41
Wild-Bird Seed and Other Wild-Bird Products .....	42
Wild-Animal Furs .....	42
Backpacking and Camping Equipment .....	43
Off-Road Vehicles .....	43
Binoculars, Monoculars, and Spotting Scopes .....	44
Wildlife Identification Books .....	45
Federal Land Use Fees .....	45

CONTENTS. (concluded).

	<u>Page</u>
Volunteer Tax Checkoff .....	45
Semipostal Stamps .....	45
Recreational Diving Equipment .....	46
Photographic Equipment and Film .....	46
Locatable Minerals .....	46
Travel Trailers, Campers, and Motorhomes .....	47
RECOMMENDATIONS TO CONGRESS .....	48
REFERENCES .....	49
APPENDIX	
<u>Federal Register</u> Announcement .....	51

## FIGURES

<u>Number</u>		<u>Page</u>
1	Relationship between net sales, tax revenue, and excess burden .....	8
2	Potential revenue from excise tax on wild-bird seed, based on 1980 sales .....	15
3	Potential revenue from excise tax on wild-bird products, based on 1980 sales .....	17
4	Potential revenue from excise tax on wild-animal furs, based on 1980 sales .....	18
5	Potential revenue from excise tax on camping and backpacking equipment, based on 1980 sales .....	20
6	Potential revenue from excise tax on off-road vehicles, based on 1980 sales .....	21
7	Off-road vehicle sources of potential tax revenue in 1980 .....	22
8	Potential revenue from excise tax on binoculars and spotting scopes, based on 1980 sales .....	24
9	Potential revenue from excise tax on wildlife identification books, based on 1980 sales .....	26
10	Potential revenue from fees on selected Federal lands, based on estimated 1980 usage .....	27
11	Potential revenue from excise tax on recreational diving equipment, based on 1980 sales .....	29
12	Potential revenue from excise tax on certain photo equipment and film, based on 1980 sales .....	31

# FIGURES. (concluded).

<u>Number</u>		<u>Page</u>
13	Potential revenue from excise tax on travel trailers and campers, based on 1980 sales .....	35
14	Potential revenue from excise tax on motorhomes, based on 1980 sales .....	36

## TABLES

<u>Number</u>		<u>Page</u>
1	Potential revenue sources studied .....	5
2	Estimated funding potential in 1980 and 2000 .....	12
3	Effects of alternative tax formulations on resource use patterns .....	33



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Many other individuals from industry associations, Federal agencies, companies, and universities also provided information and data used in this study. The several hundreds of people who responded to the Federal Register notice announcing the study provided helpful information and views.

## INTRODUCTION

This document summarizes a more detailed report on a study, plus associated recommendations, provided to the U.S. Congress by the U.S. Fish and Wildlife Service, as required by Section 12 of the 1980 Fish and Wildlife Conservation Act, Public Law 96-366 (Forsythe-Chafee Act). The purpose of this study was to develop information and data for determining, in consultation with potentially affected parties, the most equitable and effective mechanism for funding grants to States for nongame programs. Congress specified that this study include, but not be limited to, funding by potential excise taxes on appropriate items.

## BACKGROUND

The Federal government has provided grants to the States for wildlife management under the Pittman-Robertson Federal Aid in Wildlife Restoration Act (P-R) since 1938. That program is financed by excise taxes of 11% of the manufacturer/importer price on sporting arms and ammunition and certain archery equipment and 10% on that price for pistols and revolvers. The industries whose products are taxed and the hunters and recreational shooters who ultimately pay the taxes have been consistently supportive of this program. A similar act was passed in 1951 to address the needs of sport fisheries. That act, the Dingell-Johnson Federal Aid in Sport Fish Restoration Act (D-J), derived all its funding from a manufacturer/importer excise tax of 10% on fishing rods, reels, creels, and lures until 1984, when an amendment extended the tax to additional items of sport fishing tackle and dedicated duties on yachts and pleasure craft and part of the motorboat fuel tax. The P-R and D-J programs provide effective assistance for managing fish and wildlife species that may be harvested by hunters and fishermen. Nearly 70 million sportsmen are served by these management activities, as are millions of other Americans who enjoy the same species through participation in nonconsumptive activities. However, species that can be harvested through hunting and fishing constitute no more than 10% of America's vertebrate fauna. The remaining 90%, which are essentially the nongame species, receive only peripheral management attention, even though they are of interest and value to an even larger number of Americans.

In the 1970's, Congressional Committee hearings were held on bills designed to provide grants to the States for conservation and management of nongame species. During these hearings, some State needs were discussed. By April, 1979, when hearings were held on H.R. 3292, more than 260 conservation organizations and agencies had identified their support to Congress, and a concept for a Federal nongame program had been unanimously supported by the fish and wildlife agencies of all 50 States. With its companion bill S.2181, H.R. 3292 was passed, becoming the Fish and Wildlife Conservation Act of 1980. This Act provided for grants to the States, Territories, and the District of Columbia for the management of nongame species. To realize full benefits, States must prepare plans for the conservation of all fish and wildlife, nongame as well as harvested species. As amended by Public Law 97-396, the Act also mandated the present funding study by the following provision:

Sec. 12. Study. The Director of the United States Fish and Wildlife Service, in consultation with affected parties, shall conduct a comprehensive study to determine the most equitable and effective mechanism for funding State conservation plans and actions under

this chapter, including, but not limited to, funding by means of an excise tax on appropriate items. On or before December 31, 1984, the Director shall report to the Committee on Environment and Public Works of the Senate and to the Committee on Merchant Marine and Fisheries of the House of Representatives the results of such study, together with his recommendations with respect thereto.

The process leading to the establishment of the Fish and Wildlife Conservation Act of 1980, and the present study, reflect input of ideas and information from a broad range of groups and interests. Much of this input was utilized in the planning and execution of this study.

## PURPOSE AND SCOPE

The study was performed as required by Section 12 of the Fish and Wildlife Conservation Act of 1980. There were three purposes for this study: (1) to develop information about the equity and effectiveness of the identified potential funding sources; (2) to obtain comments and information from potentially affected parties; and (3) to provide results for use by the Director of the U.S. Fish and Wildlife Service in formulating recommendations to Congress as required by the Act. This report was considered by the Director of the U.S. Fish and Wildlife Service in formulating recommendations for the Senate Committee on Environment and Public Works and the House Committee on Merchant Marine and Fisheries. Those recommendations are summarized on page 48 of this report.

Eighteen potential revenue sources were selected for detailed analysis (Table 1), including sources identified during Congressional hearings. These 18 potential funding sources were identified in the Federal Register announcement (see Appendix), which solicited public comments. Several other potential funding sources received preliminary evaluation, and the public suggested additional items for consideration. Analysis of one of the sources suggested by the public--developer fees--is summarized in this report; additional sources are discussed in the detailed report entitled "Potential Funding Sources to Implement the Fish and Wildlife Conservation Act of 1980", Fish Wildl. Serv. Biol. Rep. 85(5), to be available in June of 1985.

Table 1. Potential revenue sources studied.

- 
- A. Annual appropriations
  - B. 5% & 10% excise taxes on wild-bird seed
  - C. 5% & 10% excise taxes on wild-bird houses
  - D. 5% & 10% excise taxes on wild-bird feeders
  - E. 5% & 10% excise taxes on wild-bird waterers, baths, and heaters
  - F. 5% & 10% excise taxes on wild-animal furs
  - G. 5% & 10% excise taxes on backpacking and camping equipment
  - H. 2% & 5% excise taxes on off-road vehicles:
    - Snowmobiles
    - Off-road motorcycles
    - Other all-terrain vehicles
    - Four-wheel drive vehicles
  - I. 5% & 10% excise taxes on binoculars, monoculars, and spotting scopes
  - J. 5% & 10% excise taxes on wildlife identification books
  - K. Fees of \$0.50-\$2.00 for use of selected Federal lands and waters
  - L. Voluntary contribution by Federal income tax checkoff
  - M. Sale of semipostal stamps with surcharges of 25% and 50% of postage value
  - N. 5% & 10% excise taxes on recreational diving equipment
  - O. 1% & 5% excise taxes on certain photographic equipment and film
  - P. 1% & 5% taxes on certain locatable minerals extracted from Federal lands and waters
  - Q. 1% & 5% excise taxes on travel trailers and campers
  - R. 1% & 5% excise taxes on motorhomes
  - S. 1% & 5% tax or fee on selected Federal developments
-

## METHODS AND CRITERIA

A specific definition was adopted for each source, and potential rates of taxation were specified by the Funding Recommendations Oversight Group. An extensive search for data on the potential funding sources was undertaken, which covered large computerized bibliographic data bases and libraries. The search extended to contacts and data sources that included industry associations, other governmental agencies, companies, and individuals.

The study used available data and information to evaluate the potential funding sources. Data were analyzed using a variety of methods, including multivariate regression analyses of historical price-quantity data. The latter method was used, when more extensive data were available, to analyze the effect of a potential tax-induced price increase on quantity sold. The estimates developed and presented in this report reflect adjustments for rounding.

As required by Section 12 of the Fish and Wildlife Conservation Act of 1980, each potential funding source was analyzed to determine its relative effectiveness and equity. Two principal criteria were applied to each potential source to evaluate effectiveness: (1) funding potential; and (2) economic efficiency. Two additional criteria were applied to evaluate equity: (1) benefits received; and (2) ability to pay. These criteria are described in the following discussion.

### FUNDING POTENTIAL

This criterion shows the level of potential funding generated from each source, adjusted for reduced sales volume that may result from price increases due to potential excise taxes on products. The potential revenue from sources not involving excise taxes, such as contributions by checkoff on the Federal income tax form, also was estimated. Up to 8% of the estimated funding potential for each source would be required for administering a nongame program. Thus, the actual funds potentially available for grants to State nongame programs would be slightly lower than the estimates.

### ECONOMIC EFFICIENCY

The efficiency of the economic system in allocating, by consumer choice and purchase, the flow of resources to their highest valued uses can be increased or impaired by a tax (Musgrave and Musgrave 1980). For example,

individual consumers may decide to reduce the quantity they purchase of a product if the price is increased. The extent to which this occurs depends on how sensitive the quantity purchased is to price. The degree of price sensitivity is measured by "price elasticity." An item having price inelastic demand will show little decrease in quantity purchased for small price increases.

A price increase would result from an excise tax that is wholly or partially passed to consumers by manufacturers or importers. The consumers who decide not to purchase the product due to the tax-induced higher price then take a "second-best" action, such as purchasing an alternative product or foregoing purchase altogether. The loss in economic well-being that results from consumers not purchasing "first-choice" items due to a tax-induced price increase is known as "excess burden". This "excess burden" reflects a loss of well-being in addition to the loss associated with the payment of the tax itself to the government (the latter is known as direct burden). The estimated "excess burden" or economic loss resulting from potential taxes is summarized as the "cents lost per dollar of potential revenue" in the analyses described below.

The "excess burden", or economic loss resulting from potential taxes, provides information as to the relative economic loss likely to result from each tax. Potential taxes then can be identified that minimize the distortion in consumer choice and loss of production.

Alternatively, economic efficiency may be increased by taxes on other products which may not reflect certain costs, such as environmental degradation resulting from the use of these products. A potential tax may serve to "internalize" such costs into the producer and consumer decision process (Mishan 1971). In this instance, the reduction in purchase and use of such products may result in "excess benefit" to the economy and society as a whole (Terkla 1984).

Figure 1 illustrates the relationship between change in sales revenue (net sales) received by firms when a tax is levied, tax revenue collected, and excess burden. For example, an excise tax may increase the price of the product and reduce the quantity purchased. Net sales to firms, in this instance, would decrease due to a reduction in quantity sold. Tax revenue would be collected on the remaining quantity of the good sold. But, due to the potential tax-induced price change, there may be an additional loss to consumers and producers that is not offset by a gain elsewhere in the economy. This excess burden is a "deadweight" loss to the economy because it is a net loss in economic well-being. The excess burden and net sales reduction would be smaller if the demand for a product is more price insensitive or price inelastic.



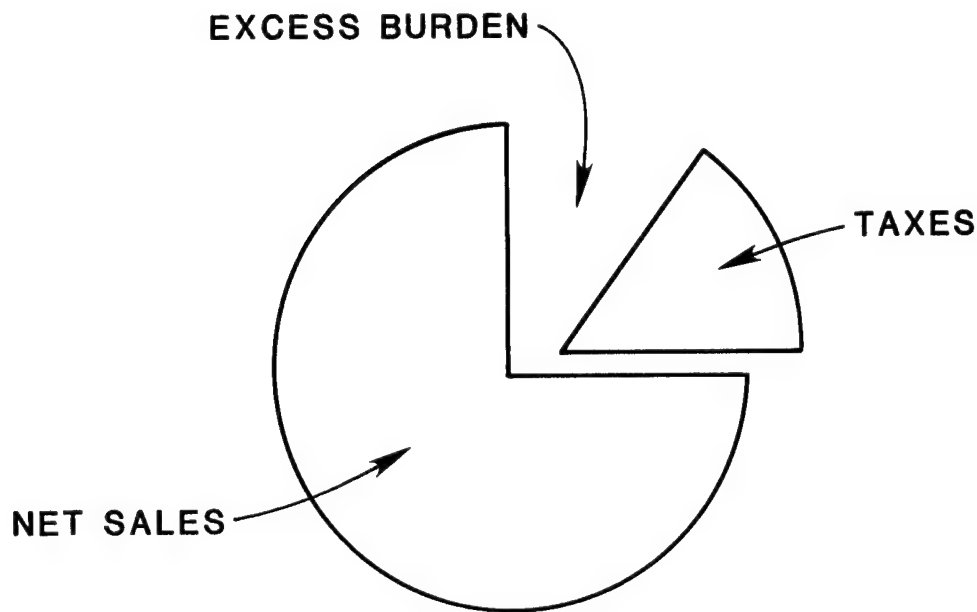


Figure 1. Relationship between net sales, tax revenue, and excess burden.

#### BENEFITS RECEIVED

This criterion evaluates whether or not those benefiting more from a government-provided service are contributing more for the service than those who use it very little. It takes account of the relationship between taxes paid and benefits obtained by the payers. The principle that the taxes or contributions paid by an individual should correspond to the benefits that the individual receives from government services dates back to 1776, when Adam Smith wrote The Wealth of Nations (Cannon 1904). This study evaluates whether or not payers of a potential tax would benefit from wildlife habitat and population management programs. Campers and hikers, for example, benefit directly from improvements in wildlife resources as a result of using habitat and observing animals.

The protection of wildlife habitat also yields indirect benefits from, for example, maintaining open space in urban or suburban areas and environmental quality in rural areas. Further, many people derive satisfaction from just knowing that wildlife exists (Krutilla 1967; Brookshire et al. 1983). However, these potential "existence" benefits are very diffuse across the population as a whole and do not accrue only to individuals paying taxes or contributing funds. Indirect benefits also may accrue to the general public from potential revenue used by States to carry out their "public trust" responsibilities for the maintenance and improvement of wildlife as a public resource, under the Public Trust Doctrine (Brokaw 1978). The indirect benefits, including existence values, are general benefits associated with virtually all of the potential revenue sources that accrue to payers and

nonpayers of a tax. Because such diffuse benefits exist for any revenue source, those types of benefits are of little use for ranking the benefits received linkage of each potential excise tax. Thus, emphasis in this study is placed on the direct linkage between the potential tax payer or contributor and participation in, or benefits from, activities for which the funds would be used.

For many potential tax revenue sources, the purchase of goods primarily or secondarily used for nonconsumptive wildlife-related purposes can be compared with total industry sales. If these wildlife-related expenditures are a significant portion of the total sales, a potential tax on that product may correspond to a tax in lieu of direct payment for viewing wildlife or using habitat. In this case, the potential tax paid by purchasers may substitute for the direct payment of a fee to participate in the recreational experience. However, the linkage is not complete if persons can participate in the activity and receive benefits from wildlife programs without purchasing the good. These individuals would receive a "free ride" because they would be able to obtain the benefits without paying the tax.

#### ABILITY TO PAY

When individual citizens who are beneficiaries of government expenditures cannot be identified (as in the case of National defense or the space program), or society chooses not to tax on the basis of benefits received, the ability to pay criterion is often used to evaluate the fairness or equity of a tax. This criterion involves assessing the relative sacrifices in material well-being made by individuals who are taxed. A tax generally is considered equitable if equal sacrifices are made by taxpayers at all income levels, in proportion to income. Thus, the equity of a potential tax can be measured by the percentage of income paid as taxes, assuming that the level of income is an acceptable measure of material well-being. The tax is considered progressive if the percentage of income paid as taxes rises as income increases. If the percentage of income paid as taxes decreases as income rises, the tax is regressive because lower income earners pay relatively more of their income for the tax. The tax is considered proportional to income if the taxes paid remain a constant percentage of income regardless of the level of income.

#### CONSULTATION PROCESS

The U.S. Fish and Wildlife Service was directed by the Congress to consult with potentially affected parties in the performance of this study. Constraints on time and funds precluded direct contact with all of the manufacturers, retailers, consumers, and other parties concerned with the potential funding sources. Thus, consultation consisted of several efforts to provide accurate information to parties having an apparent interest in one or more of the sources under study, providing them an opportunity to state their views, and considering these views during formulation of recommendations to Congress. On October 28, 1983, a notice was published in the Federal Register (see Appendix) describing the study and the potential funding sources to be examined and inviting public comments. Copies of this notice were sent directly to

approximately 500 manufacturers, importers, retailers, conservation organizations, and other potentially affected groups. Similar information was incorporated into news releases, which were distributed Nationally to the media. The public was provided with a name and telephone number to which they could direct questions. Finally, the chairman of the oversight group accepted all invitations to meet with groups to explain the study and its purpose.

Other contacts included personnel in government agencies responsible for collecting data on product sales and/or administering programs that would be affected by implementation of taxes on the various funding sources, and manufacturers and manufacturing associations with data on product sales. Contacts also were made with several foreign countries through the Department of State on the sales and administrative costs associated with the sale of semipostal stamps.

The published announcement in the Federal Register and news media resulted in several hundred responses offering comments on the nongame program, the proposed study, and the potential funding sources. The information and data obtained from the consultation process were incorporated into the study and used in formulating recommendations to the Congress.

## ANALYSIS OF POTENTIAL FUNDING SOURCES

The information and data developed for each of the 18 potential sources included in the Federal Register announcement (see Appendix) are summarized in this section. Table 2 shows the estimated potential funding in 1980 and the direction of change in future funding potential for each source. Thus, the funding potential in the year 2000 is described as increasing, decreasing, or stable as compared to the funding potential estimated for 1980. The estimated funding potential shown in Table 2 reflects the range of revenue from the lowest to highest specified tax rates and, in some instances, the estimated range of product sales.

Table 2. Estimated funding potential in 1980 and 2000.

Potential sources	Funding potential (millions of 1980 \$)	
	1980	2000
A. Annual general fund appropriations	variable and uncertain	
B. 5% & 10% excise taxes on wild-bird seed	3.8 & 7.3	increasing
C. 5% & 10% excise taxes on wild-bird houses	0.5 & 0.9	increasing
D. 5% & 10% excise taxes on wild-bird feeders	1.3 & 2.5	increasing
E. 5% & 10% excise taxes on wild-bird waterers, baths, and heaters	0.6 & 1.2	increasing
F. 5% & 10% excise taxes on wild-animal furs	11.2 & 21.4	increasing
G. 5% & 10% excise taxes on backpacking and camping equipment	14.3 & 28.1	increasing
H. 2% & 5% excise taxes on off-road vehicles:	76.8 & 147.3	increasing
Snowmobiles	3.5 & 8.0	decreasing
Off-road motorcycles	5.9 & 14.6	increasing
Other all-terrain vehicles	0.8 & 1.5	increasing
Four-wheel drive vehicles	66.6 & 123.2	increasing
I. 5% & 10% excise taxes on binoculars, monoculars, and spotting scopes	2.3 & 4.6	increasing
J. 5% & 10% excise taxes on wildlife identification books	0.5 & 1.0	increasing

Table 2. (concluded).

Potential sources	Funding potential (millions of 1980 \$)	
	1980	2000
K. Fees averaging about \$1.00* for use of selected Federal lands and waters:	103.1	increasing
Fish and Wildlife Service	12.2	increasing
National Park Service	15.0	increasing
Forest Service	50.1	increasing
Army Corps of Engineers	7.5	increasing
Bureau of Reclamation	18.3	increasing
L. Voluntary contribution by Federal income tax checkoff	40.0	increasing
M. Sale of semipostal stamps with contribution of 25% & 50% of postage value	11.3 & 203.4	increasing
N. 5% & 10% excise taxes on recreational diving equipment	1.7 & 3.1	decreasing
O. 1% & 5% excise taxes on certain photo- graphic equipment and film	25.2 & 124.0	increasing
P. Taxes on certain locatable minerals extracted from the public domain	120.0	increasing
\$10 & \$25 claim renewal fee	12.1 & 30.2	stable
Q. 1% & 5% excise taxes on travel trailers and campers	5.3 & 23.0	increasing
R. 1% & 5% excise taxes on motorhomes	4.5 & 19.5	increasing

\*Fees considered ranged from \$0.50 to \$2.00 per visitor day depending on agency jurisdiction and activities provided.

## A. ANNUAL GENERAL FUND APPROPRIATION

Annual appropriations by the Congress from the general fund would vary from year to year based on priorities for government programs. The overall level of economic activity also would affect the amount of taxes paid to the Federal government and the funds available for Federal programs. The economic rationale for general appropriations is that several of the benefits of nongame wildlife management would accrue to the entire population, making identification of specific beneficiaries difficult. For example, the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982) noted that 93.2 million Americans (55% of the population) age 16 and over engaged in some form of nonconsumptive wildlife-associated activity. In addition, the continued existence of many species of nongame wildlife is of value to many people, even if they do not actually visit a site for viewing or photographing. In this sense, wildlife can be thought of as a "public good". A general fund appropriation would minimize the opportunity for an individual to avoid payment and still enjoy these benefits of fish and wildlife conservation programs. However, additional benefits beyond those mentioned above would accrue to persons who make individual trips to wildlife areas potentially managed with nongame funds. Therefore, financing of nongame wildlife programs solely from general appropriations would not be completely consistent with the benefits received principle of taxation.

The range of excess burden, based on existing literature, could be as low as 7% or as high as 22%, depending on how additional tax revenue was obtained. That is, if marginal tax rates were raised, \$0.07 to \$0.22 of production would be lost to the economy for each dollar of additional tax revenue. If revenue for nongame wildlife management were obtained by redirection of existing tax revenue, no new excess burden would be created.

Individual income and corporate tax payments going into the general fund are relatively progressive. That is, upper income people generally pay a larger percentage of their income as Federal income taxes than do middle or lower income households.

## B. POTENTIAL EXCISE TAX ON WILD-BIRD SEED

Potential funding from this source would be obtained by an excise tax on wild-bird seed, levied at the manufacturer/importer level. Tax rates of 5% and 10% were considered. Seed for use by domestic or farm animals would be excluded. Potential sales of wild-bird seed in 1980 were estimated based on the 617 million pounds of wild-bird seed reported as purchased by respondents to the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Shaw 1983). The value of wild-bird seed in 1980 was estimated at \$0.13 per pound at the manufacturers' level. Total sales of wild-bird seed in 1980 were estimated at \$80.2 million (617 million pounds multiplied by the estimated \$0.13 per pound producer value in 1980). Increasing sales to the year 2000 were estimated based on continuing growth in the U.S. population as shown in the "most likely projection" from the U.S. Bureau of the Census (U.S. Department of Commerce 1982).

The sensitivity of wild-bird seed quantity sales to price increases was estimated based on testimony by a manufacturer during hearings leading to passage of the 1980 Fish and Wildlife Conservation Act (U.S. Congress 1980) and on economic factors determining price sensitivity because data were not available to statistically estimate price sensitivity. This manufacturer stated that the percentage change in quantity would equal the percentage change in price resulting from a potential tax. This relationship was assumed as the upper limit on quantity change based on the economic factors evaluated (Hirshleifer 1976). This price-quantity relationship was used to estimate potential tax revenue of \$3.8 million in 1980 at a 5% rate with net sales estimated at \$76.4 million. Net sales of \$76.4 million reflect a decrease from the \$80.2 million estimated sales in 1980 without a potential excise tax. Net sales were predicted to decrease because a reduced quantity would be sold with an increase in price due to the excise tax. Net sales were estimated to decrease further to \$72.9 million with an assumed 10% tax yielding \$7.3 million in potential revenue. Figure 2 shows the relationship between tax revenues at 5 and 10% rates. These potential revenues also are listed in Table 2.

The potential revenue estimates of \$3.8 and \$7.3 million, at assumed 5% and 10% tax rates, include estimated import duties of about \$60,000 and \$120,000, respectively, based on a median estimate of \$139,500 in duties collected under tariffs existing in 1980.

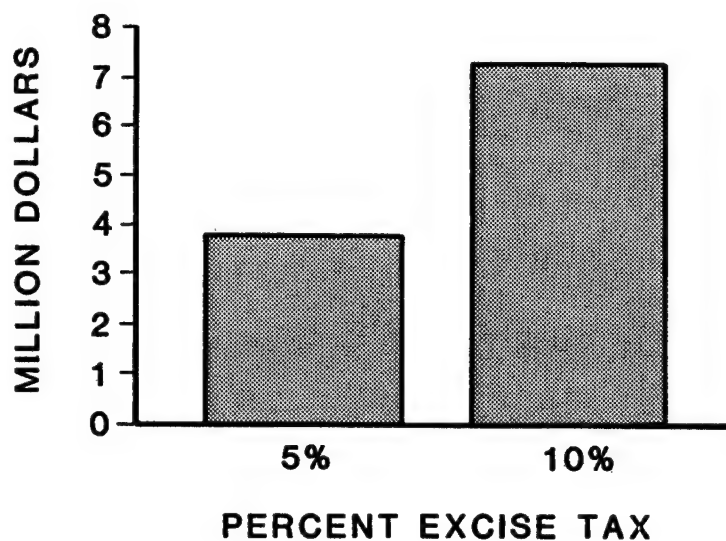


Figure 2. Potential revenue from excise tax on wild-bird seed, based on 1980 sales.



A potential tax on wild-bird seed would result in minimal distortion to the economy, with an estimated \$0.02 economic efficiency loss per dollar of potential revenue. However, a potential tax on wild-bird seed would be quite regressive because expenditures do not rise significantly with income. In addition, a higher percentage of the tax would be paid by the elderly because expenditures for wild-bird seed increase as the age of the purchaser rises. Thus, disproportionate tax payments would be made by lower income and elderly individuals, compared to the population as a whole.

About half of the current nongame checkoff funds are being spent on wildlife management related to birds (mainly raptors). Assuming that interest in feeding birds implies a general interest in wildlife, the benefits received by payers of a potential tax on wild-bird seed would be fairly high.

#### C, D, and E. POTENTIAL EXCISE TAX ON WILD-BIRD PRODUCTS

Potential funding from wild-bird products would be obtained by an excise tax on wild-bird houses, feeders, waterers, baths, and heaters, levied at the manufacturer/importer level. Tax rates of 5% and 10% were considered.

Sales of wild-bird houses, feeders, and baths were estimated at \$51.4 million in 1980, in 1980 producer prices, based on retail sales of \$100.8 million reported in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982). These retail sales were converted to producer values using price markups estimated for the wild-bird products industry by George et al. (1982). Increasing sales to the year 2000 were estimated based on continuing growth in the U.S. population as shown in the "most likely projection" from the U.S. Bureau of the Census (U.S. Department of Commerce 1982).

Net sales of wild-bird houses, feeders, and baths in 1980 were estimated to decrease from the \$51.4 million estimated for 1980 without a potential tax to about \$49.0 million if a 5% excise tax was imposed. The 5% potential excise tax would yield an estimated revenue of about \$2.4 million. Net sales would decrease further to about \$46.8 million if a 10% excise tax were levied, yielding about \$4.7 million in potential revenue. Table 2 and Figure 3 show the potential tax revenue at 5% and 10% tax rates for these products.

Data were not available for wild-bird waterers or water heaters. Therefore, the amount of additional revenues that might be obtained from potential taxes on these products is unknown.

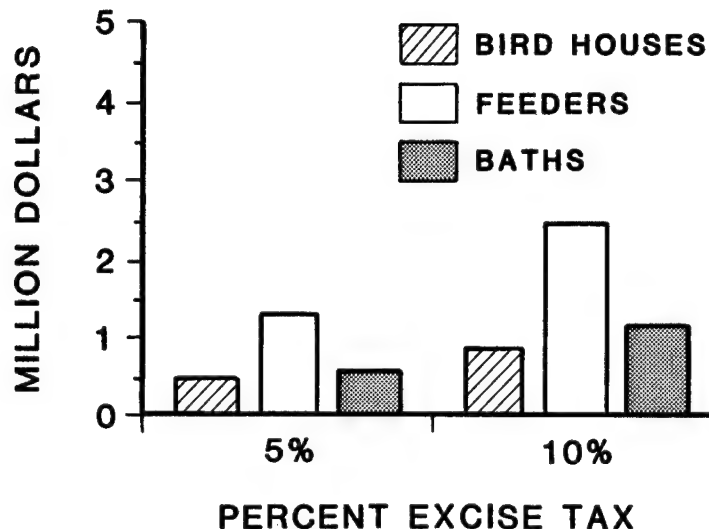


Figure 3. Potential revenue from excise tax on wild-bird products, based on 1980 sales.

Individuals with knowledge of this industry (Frank pers. comm.; George pers. comm.; Hyde pers. comm.) indicated that imports comprise an insignificant share of the United States market for these products. Therefore, no significant import duties would be obtained.

Minimal economic distortion would be likely from a 5% potential tax on these products with the excess burden not exceeding 6%, but a 10% tax could result in as much as a 12% excess burden. Due to the low price of these products, a 10% potential tax rate would result in only about \$0.50 to \$1.00 tax paid per household per year. Expenditures on wild-bird feeders rise with age, implying that a disproportionate share of the tax would be paid by the elderly. There is no discernible age pattern for people who purchase wild-bird houses and baths. Although a potential tax on these products represents less than one-hundredth of 1% of income, a fairly strong regressive pattern would result. Thus, lower income and elderly individuals would pay a disproportionate share of a potential tax on these items.

The benefits received linkage would be similar to wild-bird seed. Currently, about half of nongame revenues available to the States are being spent on management programs for birds (mainly raptors). Thus, the benefits received linkage would be fairly strong, assuming that an individual's interest in birds that use these products implies a general interest in wildlife.

#### F. POTENTIAL EXCISE TAX ON WILD-ANIMAL FURS

Potential funding from this source would be obtained by an excise tax on wild-animal furs or pelts from animals that are trapped in the wild. Tax rates of 5% and 10% were considered. Furs from animals raised on fur farms or fur ranches would be excluded. The fur harvest during the 1979-80 season resulted in sales of \$294.5 million. Net sales are estimated to decrease to about \$224.4 million if a 5% excise tax were levied. A 5% tax would yield revenue estimated at about \$11.2 million.

The sales of \$294.5 million in 1980 would decrease to about \$214.2 million if a 10% excise tax were levied. A 10% tax potentially would yield revenue estimated at about \$21.4 million. Table 2 and Figure 4 display the potential tax revenue that would be collected with 5% and 10% taxes.

The sales estimated above were projected to increase by the year 2000, based on a revenue forecasting equation and economic theory. The projected increasing sales reflect the "most likely" growth in U.S. population (U.S. Department of Commerce 1982), increases in real income projected by the Bureau of Economic Analysis (U.S. Department of Commerce 1981), and the apparent sensitivity of fur purchases to income.

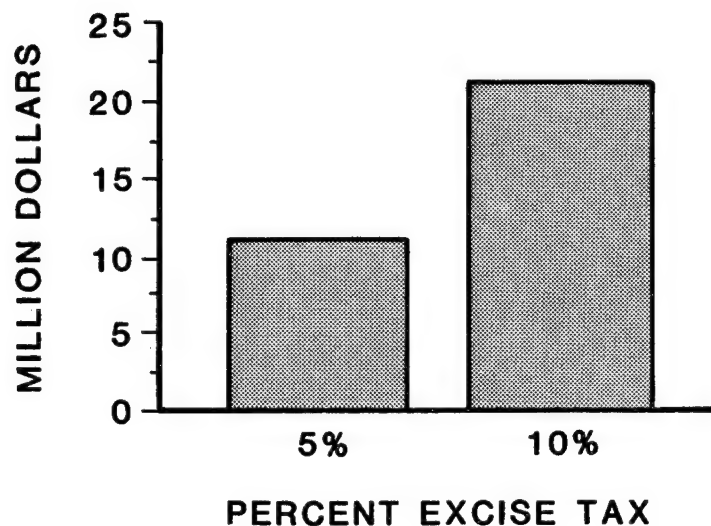


Figure 4. Potential revenue from excise tax on wild-animal furs, based on 1980 sales.

Currently, furskins are imported duty free. However, the levy of potential 5% and 10% excise taxes on imports of wild-animal furs would have yielded revenue of \$4.2 to \$9.4 million in 1980, based on fur imports estimated within a range of \$84.0 to \$94.0 million. These potential revenues would be added to the revenues shown above, which reflect potential revenues derived only from transactions at the point when furs are purchased from trappers.

The bearer of the burden of the potential tax, the price sensitivity of demand for wild-animal furs, and the excess burden of the tax depend on whether the bulk of the revenue would be obtained from species that also have a substantial (but untaxed) ranch supply (such as mink) or from predominantly wild species. For species such as mink, with a 90% ranch supply, trappers would bear almost the entire tax. The excess burden borne by trappers could be substantial. For the majority of species where furs are derived from harvest of wild animals, consumers (and possibly trappers) would bear the potential tax and the excess burden. Given the probable large price elasticity of demand for wild furs, a 10% tax could reduce sales by as much as 30%.

A tax on wild-animal furs would be close to proportional or slightly regressive for species with no significant ranch supply. For ranch species, the tax burden on the trapper would be regressive. Purchases of fur clothing peak in the 35-44 age class and decrease rapidly beyond age 45.

The benefits received relationship may be weak for wild furs unless wildlife habitat management, targeted at nongame species, substantially increases habitat quantity and quality for commercially valuable fur-bearing animals.

#### G. POTENTIAL EXCISE TAX ON BACKPACKING AND CAMPING EQUIPMENT

Potential funding from this source would be obtained by excise taxes on backpacking and camping equipment. Tax rates of 5% and 10% at the manufacturer/importer level were considered. Backpacks include internal and external frame packs and soft packs. Camping equipment includes tents, lanterns, camp stoves, sleeping bags, and tent heaters. Data on sales of backpacks and camping equipment were obtained from the National Sporting Goods Association and other sources. Equations derived from these data and estimates of price elasticity, obtained elsewhere, were used to estimate potential sales and tax revenues.

Backpacking and camping equipment sales in 1980 were estimated at \$293.4 million, at 1980 producer prices. Net sales were estimated to decrease to about \$286.8 million if a 5% excise tax were levied. A 5% tax would yield potential revenue estimated at about \$14.3 million. Net sales would decrease further to about \$280.9 million if a 10% excise tax were levied. The potential revenue from this tax was estimated at about \$28.1 million. Table 2 and Figure 5 show potential revenue from 5% and 10% tax rates.

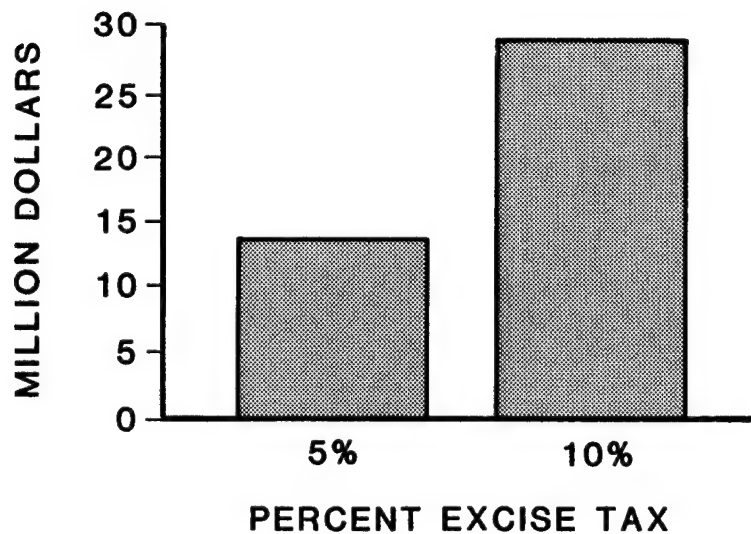


Figure 5. Potential revenue from excise tax on camping and backpacking equipment, based on 1980 sales.

The potential revenue estimates, shown in Table 2 and Figure 5, include increased import duty estimated at \$1.1 and \$2.1 million under the 5% and 10% tax rates, respectively, assuming the reduction in import sales is proportional to the reduction in domestic production. These potential taxes would be added to the estimated duty of about \$3.3 million collected in 1980 under existing rates of duty. The overall potential revenue from these products was projected to increase through the year 2000 due to projected continuing increases in sales of backpacks.

The economic efficiency effects of a 5% tax would be about average among the potential tax sources. A 5% tax would result in about \$0.06 of economic efficiency loss for every dollar of tax revenue. A 10% tax would result in a \$0.15 loss of economic efficiency for every dollar of tax revenue. In terms of ability to pay, a tax on backpacking and camping equipment would be somewhat regressive. In the low income group, above average expenditures are concentrated in the 18 to 34 year age bracket. The benefits received linkage of a tax on backpacking and camping equipment would be partly influenced by the potential expenditures by States for camping and hiking areas as part of their wildlife conservation plans. The presence of wildlife was important to about half the persons who went backpacking and camping according to studies by Kellert (1978). About 20% of the people who bought camping or backpacking equipment did so with nonconsumptive use of wildlife as one of the primary uses of such equipment (Shaw and Mangun 1984).

#### H. POTENTIAL EXCISE TAX ON OFF-ROAD VEHICLES

Potential funding from this source would be obtained from excise taxes on snowmobiles, off-road motorcycles (units not designed for use on streets or highways), other all-terrain vehicles, and four-wheel drive vehicles (gross vehicle weight up to 10,000 lbs). This includes pickup trucks, sport utility vehicles, and station wagons with four-wheel drive. Tax rates of 2% and 5% at the manufacturer/importer level were considered.

The available data, including data from snowmobile and motorcycle associations, were used to estimate statistical equations when possible. These equations and other data were used to estimate potential tax revenue and the effects of different tax rates on industry sales. Sales of snowmobiles, off-road motorcycles, other all-terrain vehicles, and four-wheel drive vehicles in 1980 were estimated at \$4,217.0 million, in 1980 producer prices. Net sales were estimated to decrease to about \$3,826.0 million if a 2% excise tax were levied. A 2% tax would yield potential revenue estimated at about \$76.8 million.

Net sales were estimated to decrease to about \$2,946.0 million if a 5% excise tax were levied. A 5% tax would yield potential revenue estimated at about \$147.3 million. Table 2 and Figure 6 show potential tax revenue at 2% and 5% rates.

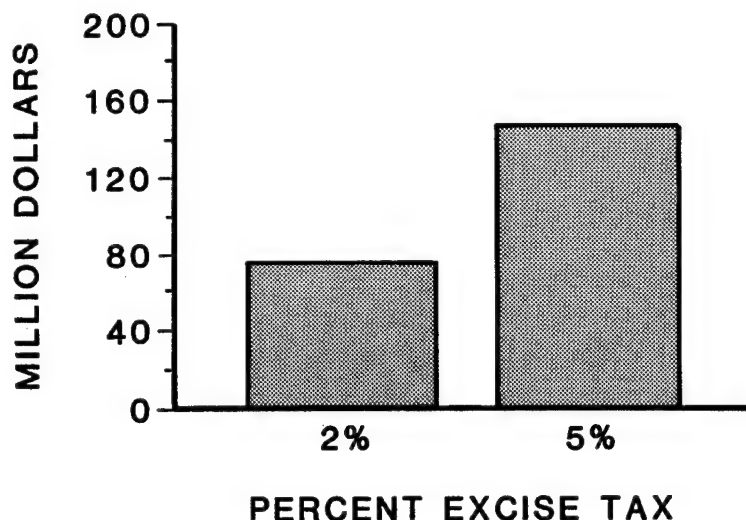


Figure 6. Potential revenue from excise tax on off-road vehicles, based on 1980 sales.

Most of the reduction in industry sales would be from relatively price sensitive four-wheel drive vehicles. Off-road motorcycle demand is much less price sensitive. Therefore, industry sales of off-road motorcycles would fall very little. The percentage of the total potential tax revenue from each of the four sources would be about 5% from snowmobiles, 7% from off-road motorcycles, 1% from other all-terrain vehicles, and 87% from four-wheel drive vehicles. The relative distribution of these sources of potential tax revenue is shown in Figure 7.

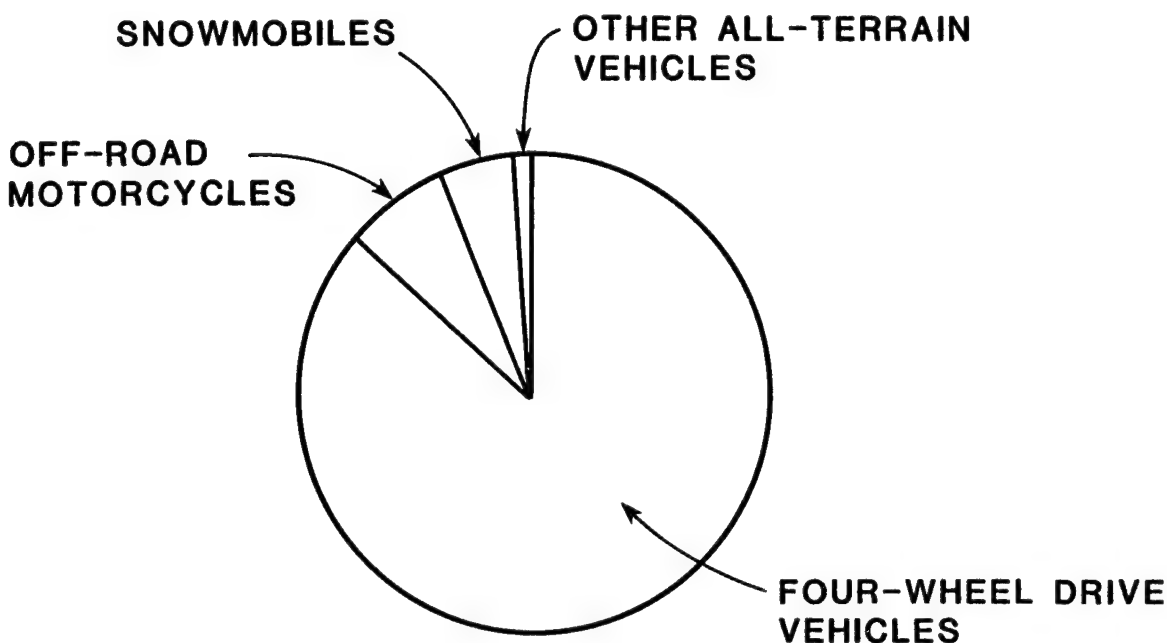


Figure 7. Off-road vehicle sources of potential tax revenue in 1980.

Increases in potential tax revenue by the year 2000 were estimated as a result of projected increases in four-wheel drive sales. These projections were based on Bureau of Economic Analysis forecasts of increasing real per capita disposable income (U.S. Department of Commerce 1981) and growth in U.S. population (U.S. Department of Commerce 1982).

In 1980, duty estimated at about \$168.4 million was collected under existing rates of duty on imports of off-road vehicles, excluding certain all-terrain vehicles for which data were not available. Potential taxes of 2% and 5% would yield additional duty of about \$20.5 and \$41.0 million, respectively, assuming reductions in import sales would be proportional to domestic production loss. These potential duties of \$20.5 and \$41.0 million were included in the potential revenue estimated above.

Due to the large price elasticity of demand for four-wheel drive vehicles, the economic efficiency effects of a 5% tax on these vehicles would be significant. The percentage excess burden of a 5% tax on four-wheel drive vehicles could be as high as 27% (\$0.27 per dollar of tax revenue). The economic efficiency effects on off-road motorcycles would be quite small, however, ranging from \$0.013 per dollar of tax revenue at a 2% tax to \$0.032 per dollar of tax revenue at the 5% tax rate. The available data were not sufficient to estimate demand equations for all-terrain vehicles and snowmobiles.

In terms of benefits received, surveys have indicated that a majority of four-wheel drive vehicle owners use their vehicles for recreational purposes (Newsweek 1982a; Four-Wheeler Magazine 1984). The direct and indirect linkages between recreational uses of off-road vehicles to observe wildlife and the benefits resulting from the tax-financed acquisition of habitat or public access have not been quantified at this time. An "excess benefit" of a tax on off-road vehicles would be the reduction in the number of vehicles sold, and, therefore, a reduction in wildlife disturbance, soil loss, water quality degradation, and habitat destruction resulting from certain uses of these vehicles.

A tax on new four-wheel drive vehicles likely would be proportional and possibly progressive. Lower income groups buy proportionately fewer off-road motorcycles or trucks, in general, compared to other population groups.

#### I. POTENTIAL EXCISE TAX ON BINOCULARS AND SPOTTING SCOPES

Potential funding from this source would be provided by excise taxes on binoculars, monoculars, and spotting scopes, levied at the manufacturer/importer level. Calculations assumed the rates of 5% and 10%. Potential sales of binoculars in 1980 and 2000 were estimated using a demand equation derived from the historical trend in purchases of imported binoculars. About 85% of total binocular sales are imported, with domestic production accounting for the remaining 15% (Flood pers. comm.). Historical data on the quantity and dollar volume of domestic production of binoculars, monoculars, and spotting scopes were not available.

The estimated purchases of imported binoculars were increased to reflect domestic output. In addition, the estimated binocular sales were increased to account for estimated sales of spotting scopes, based on data reported in the 1980 National Survey of Fishing, Hunting, and Wildlife- Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982). Sales of binoculars and spotting scopes in 1980 were estimated at about \$47.6 million, in 1980 producer prices. Net sales were estimated to decrease to about \$46.7 million if a 5% excise tax were levied. A 5% tax would yield potential revenue of about \$2.3 million. Net sales would decrease to about \$45.7 million if a 10% excise tax were levied. A 10% tax would yield revenue estimated at about \$4.6 million. Table 2 and Figure 8 show the potential tax revenue at 5% and 10% tax rates.



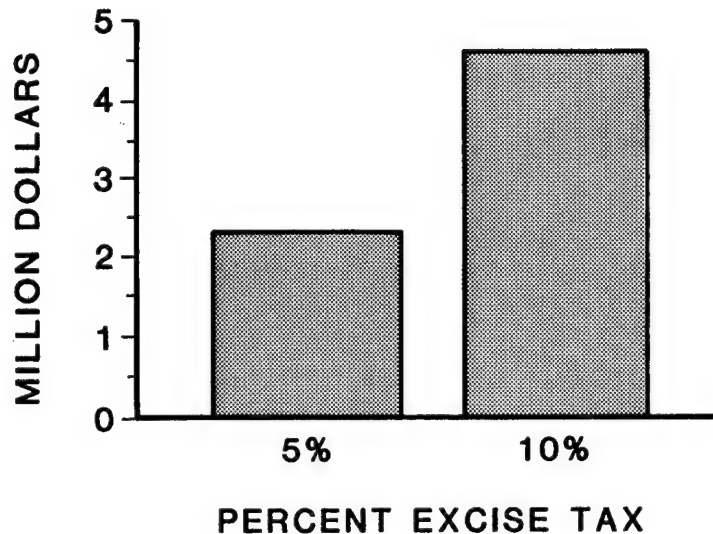


Figure 8. Potential revenue from excise tax on binoculars and spotting scopes, based on 1980 sales.

No data were available for monoculars. Therefore, the potential revenues from binoculars and spotting scopes, shown above, would be increased by a potential excise tax levied on monoculars.

Increasing sales and potential revenue were estimated for the year 2000, based on the most likely projected growth in the U.S. population (U.S. Department of Commerce 1982) and rising real income projected by the Bureau of Economic Analysis (U.S. Department of Commerce 1981). A 10% tax on binoculars would reduce the quantity sold by an estimated 4%. Comparable reductions probably would occur for monoculars and spotting scopes, assuming that the demand patterns for these products are similar to those for binoculars. Therefore, minimal excess burden would be expected at either the 5% or 10% tax rates.

The potential taxes of 5% and 10% on imports alone would yield about \$2.0 million and \$3.9 million, respectively, assuming that 85% of spotting scopes were imported, similar to binoculars. These amounts are included in the potential revenue estimates shown above.

Of the total dollar sales of binoculars, about half are to individuals for whom birdwatching is a primary or secondary activity. In addition, as

much as 75% of the more expensive binoculars (costing more than \$250 in 1975) were purchased by birdwatchers (Payne and DeGraaf 1975). Because more tax would be paid on expensive binoculars, birdwatchers would pay a higher amount of tax on a per buyer basis.

The average retail cost of both spotting scopes and binoculars in 1980 was \$57 (Shaw 1983). These products are durable goods generally lasting for several years; therefore, the annualized tax payment was estimated to be \$1 or less. Although this tax payment would be relatively regressive, the extremely small percentage of annual income spent for a tax on these products would not have a perceptible impact on any income class.

Most of the costs of adjusting production downward probably would be borne by foreign producers, inasmuch as about 85% of binocular production is from foreign sources. Sales generally have been increasing, and an adjustment probably would be manifested as a reduction in the rate of growth.

#### J. POTENTIAL EXCISE TAX ON WILDLIFE IDENTIFICATION BOOKS

Potential revenue from this source would be obtained by an excise tax on wildlife identification books, levied at the publisher/importer level. Tax rates of 5% and 10% were considered. Retail purchases of wildlife identification books were \$18.0 million in 1980, according to the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982). This translates into about \$10 million at publisher/importer prices. Therefore, 5% and 10% taxes in 1980 would have provided about \$500,000 and \$1,000,000, respectively, of tax revenue. Increasing potential tax revenue in the year 2000 was estimated based on projected growth in U.S. population (U.S. Department of Commerce 1982) and real income (U.S. Department of Commerce 1981). Table 2 and Figure 9 show potential tax revenue with 5% and 10% taxes.

Wildlife identification books are imported duty free under the Florence Agreement of 1967. An informal survey of a major book retailer identified 9% of these books as imports. Thus, the taxes of 5% or 10% would have yielded about \$45,000 or \$90,000 in 1980. This duty was included in the potential revenue estimated above. Little economic efficiency loss is likely to be associated with a 5% tax on wildlife identification books because of limited substitutes and, therefore, a price-inelastic demand. A tax on wildlife identification manuals would be regressive, but, on the average, the tax would represent less than one-hundredth of 1% of a typical household's income. Expenditures rise with age until the 45 to 54-year old bracket and then fall to average in the over-65 age bracket. The benefits received linkage would likely be strong. Tax funds would provide increased opportunities for viewing wildlife; therefore, many purchasers of wildlife identification manuals would directly benefit.

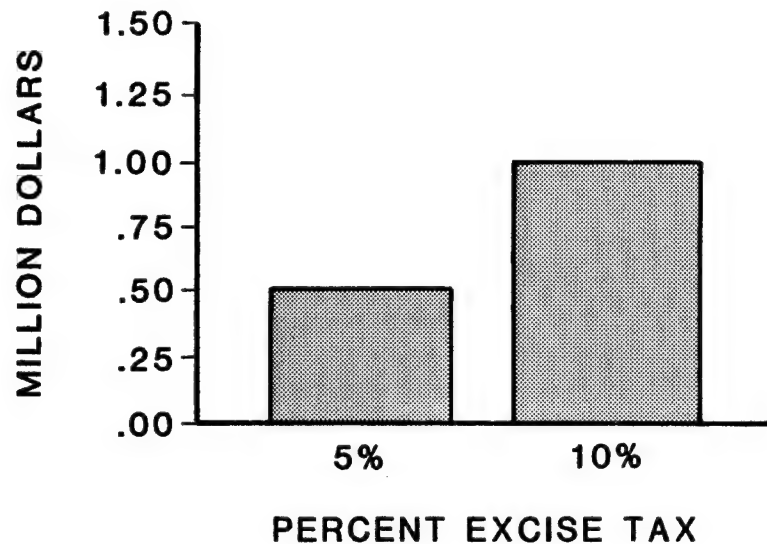


Figure 9. Potential revenue from excise tax on wildlife identification books, based on 1980 sales.

#### K. POTENTIAL USER FEES ON FEDERAL LANDS

Potential funding from this source would be from fees or surcharges for use of selected Federal lands and waters. Fees considered ranged from \$0.50 to \$2.00 per visitor day, depending on agency jurisdiction and attributes provided for recreation. Seven Federal land management agencies provide recreational opportunities. It is difficult to estimate potential revenue consistently between agencies, because of agency differences in legislative instructions, accounting procedures, attributes of the lands they manage, and access to those lands. Therefore, information drawn from a variety of sources was used in developing the estimates shown in Figure 10 and Table 2. Potential revenue from the U.S. Fish and Wildlife Service (USFWS) was estimated at \$12.2 million, National Park Service (NPS) \$15.0 million, U.S. Forest Service (USFS) \$50.1 million, U.S. Army Corps of Engineers (COE) \$7.5 million, and Bureau of Reclamation (BR) \$18.3 million. The total would have been \$103.1 million in 1980. This estimated revenue generally reflects fees averaging about \$1.00 per visitor day. Data were not available to allow revenue estimates for the other two agencies providing recreational opportunities: the Bureau of Land Management (BLM) and the Tennessee Valley Authority (TVA). Therefore, these two agencies are not shown in Figure 10 or discussed further in the text.

These revenue estimates assume that 50% of each agency's user fees would be available for funding the 1980 Fish and Wildlife Conservation Act. The remaining 50% was assumed to be needed to cover increased costs of administration and capital investments by the agencies. Potential nongame revenue would increase by 120% to \$123.6 million annually by the year 2000, based on projected growth in U.S. population (U.S. Department of Commerce 1982).

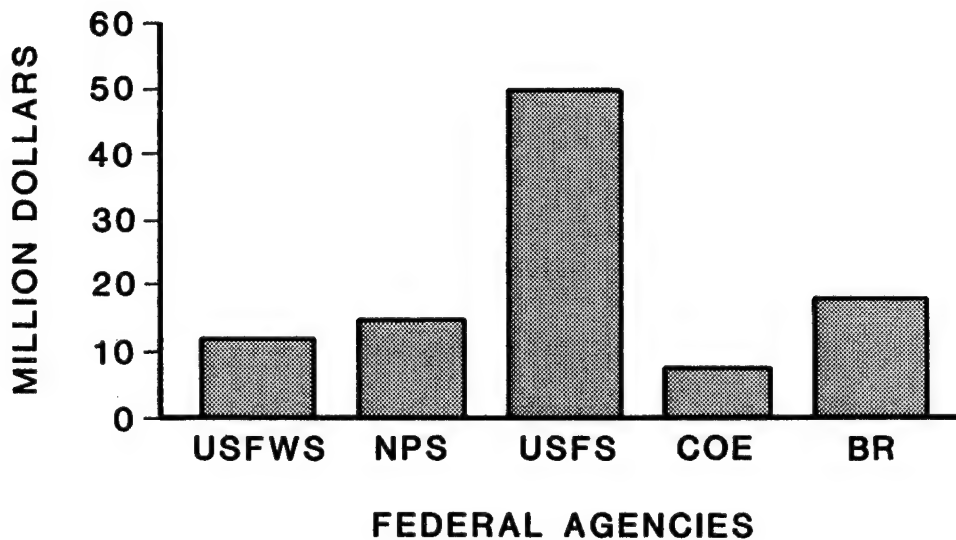


Figure 10. Potential revenue from fees on selected Federal lands, based on estimated 1980 usage.

Visitor fees would link individual charges with benefits received because wildlife enjoyment is an important attribute of most recreation visits to public lands. Visitor fees between \$0.50 and \$2.00 per person represent a small portion of the cost of most recreation visits and a very small part of annual income. Therefore, visitor charges would not significantly reduce the number of visits. Charging a fee in excess of the incremental costs of management would produce a small economic efficiency loss for uncongested Federal recreation sites.

#### L. POTENTIAL VOLUNTARY CHECKOFF ON FEDERAL INCOME TAX RETURNS

Potential funding from this source would be from a voluntary checkoff on Federal income tax returns, deductible the following year as a contribution. A voluntary checkoff on Federal income tax returns would be modeled after the State nongame checkoffs. Individuals could donate a portion of their refund (or add to amount owed) to the nongame program. An equation was developed to predict Federal checkoff revenues based on a statistical evaluation of State nongame checkoff data (Harpman 1984). The most likely revenue estimate is \$40 million for 1980 and \$54.5 million for the year 2000. Depending on how taxpayers treat a Federal checkoff, compared to State checkoffs, Federal revenue could be less than these estimates and State nongame revenue could drop significantly from the current level.

Because of the voluntary nature of the nongame checkoff, there would be little, if any, excess burden or losses in economic efficiency. However, the voluntary nature of the checkoff means that some individuals benefiting from wildlife management programs could avoid paying. This "free riding" behavior would result in below economically optimal levels of funding if a voluntary checkoff were the only Federal funding source. The voluntary nature of the checkoff ensures that contributors pay no more than their benefits received. Otherwise, contributions would diminish or stop. Contributions appear to rise with income. However, a dollar of contributions results in less sacrifice by upper income persons in a 50% marginal tax bracket than by persons in a 20% marginal tax bracket because the contribution is deductible the following year. Although contributions rise as income rises (based on an analysis of Idaho State tax returns), contributions as a percent of income appear to fall, making the checkoff regressive. The voluntary nature of the checkoff, however, implies that people must feel able to pay or they would not contribute as much as they do.

#### M. POTENTIAL SALE OF SEMIPOSTAL STAMPS

Semipostal stamps are special stamps for which the buyer pays a surtax in excess of the regular postage. Semipostal stamps have been issued in Europe and Canada, but not in the United States. Surtaxes have ranged from 20% to 100% of the face value (postage) of the stamp, with most of the issues having a 50% surtax. The revenues from the surtax on the stamps in Europe and Canada are usually dedicated to charities or other recognized purposes.

Potential funding from this source would be from a surcharge on nongame semipostal stamps. Contributions of 25% and 50% of the postage value were studied. A rough estimate of revenue potential was developed from sales data from Germany and Switzerland. The Swiss Postal Administration issues "special stamps with surcharge" twice a year. Both issues consist of a series of four stamps with surcharges of 50%. The revenue from the surcharge is used to support childrens' homes and maintain and restore National structures. German semipostal stamps have been sold for a variety of purposes, including Olympic sports and independent welfare groups. German issues are generally in series of four, with surtaxes of 50% of the face value. Annual sales in Germany have been approximately one stamp per citizen; Swiss sales have been nine stamps per citizen. However, sales data may include significant stamp sales to individuals in other countries. Assuming the same range of per capita sales in the United States, approximately 226 to 2,034 million stamps would have been sold in 1980. If the stamps were sold for \$0.20, with a \$0.05 (or 25%) surcharge, potential surcharge revenues would have been \$11.3 to \$101.7 million. A \$0.10 (or 50%) surcharge would have yielded \$22.6 to \$203.4 million. Sales in the year 2000 were estimated at \$26.7 to \$240.3 million for a 50% surcharge and \$13.4 to \$120.2 million for a 25% surcharge, based on growth in U.S. population (U.S. Department of Commerce 1982). Net revenues would be less because of advertising costs.

The economic efficiency effects of the surcharge would be limited because the purchase of semipostal stamps would be voluntary. In addition, the stamps would be purchased in small increments and at selected times. Purchases would likely be in line with an individual's perceived benefits because the purchase of semipostal stamps would be voluntary. Purchases would reflect a person's view of their ability to pay, with respect to their income. The likelihood of "free riding" of benefits by nonpayers would make sole reliance on this voluntary source inconsistent with the benefits received principle of taxation.

#### N. POTENTIAL EXCISE TAX ON RECREATIONAL DIVING EQUIPMENT

Potential funding from this source would be obtained by an excise tax on recreational diving equipment, including masks, snorkels, tanks, regulators, flippers, wetsuits, and spear guns. Tax rates of 5% and 10% at the manufacturer/importer level were considered. Sales volume data were obtained from the National Sporting Goods Association and used to estimate a revenue forecasting equation. Potential taxes, estimated using this equation, at the 5% level in 1980 would have yielded \$1.7 million based on estimated net sales of \$34.3 million. A tax at the 10% level would cause net sales to fall to \$31.0 million due to high price sensitivity of demand, resulting in tax revenues of \$3.1 million. The trend in real sales (sales adjusted for inflation) shows a substantial decrease over the last 10 years. If this trend continues, little tax revenue would be expected in the year 2000. Table 2 and Figure 11 show potential tax revenue with 5% and 10% taxes.

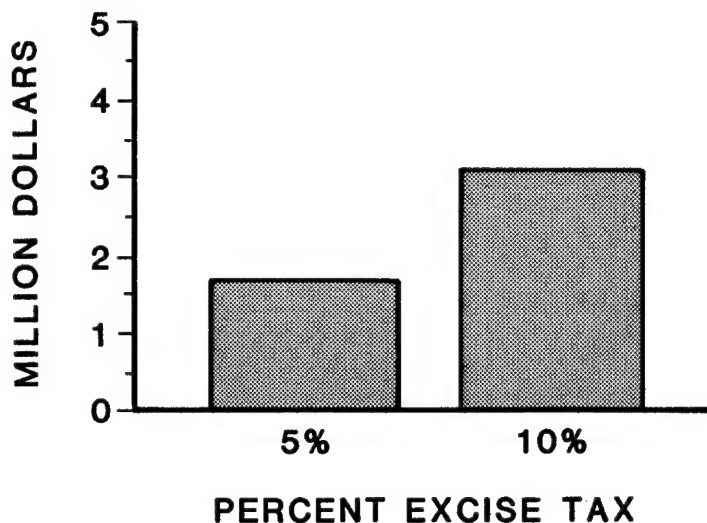


Figure 11. Potential revenue from excise tax on recreational diving equipment, based on 1980 sales.

Imports of underwater breathing devices were \$802,000 in 1980, yielding \$31,278 in revenue under a 3.8% rate of duty. Potential 5% and 10% taxes would yield additional estimated revenue of \$38,000 and \$70,000, respectively, assuming reductions in import sales proportional to losses in domestic production. The potential duty of \$38,000 to \$70,000 was included in the revenue estimated above. These estimates exclude potential revenue from other articles, such as wetsuits, for which data were not available.

The price sensitivity of demand for lower priced diving equipment, such as flippers, masks, and snorkels, is less than for high priced items, such as air tanks, regulators, and wetsuits. Therefore, more economic efficiency losses would be expected with the higher priced items. Overall, a 10% tax could have a significant economic efficiency loss in terms of excess burden, compared to a 5% tax.

No data were available to quantify the degree of progressiveness or regressiveness of a tax on recreational diving equipment. It would seem likely that the tax would be mildly regressive, based on incomes of users and the range of prices for diving gear. The benefits received linkage would be positive, but lack of data precludes inferences about the strength of this linkage. Recreational divers would benefit from expenditures of tax revenues by States in several ways, including the acquisition of land or increased public access to areas suitable for diving (because of their habitat and public use value), improvements in water quality (aimed at increasing the number and diversity of fish populations), and increases in the number and diversity of fish seen while diving.

#### 0. POTENTIAL EXCISE TAX ON SELECTED PHOTOGRAPHIC EQUIPMENT AND FILM

Potential funding from this source would be obtained by an excise tax on film and photographic equipment, including still cameras and amateur color and black and white film. Lenses, filters, and tripods used by amateurs also would be included. Industrial and scientific cameras and dental, medical, and industrial film generally would be excluded. Tax rates of 1% and 5% at the manufacturer/importer level were considered.

Sales data were obtained that could be used to estimate demand curves for imported 35 mm cameras (which currently constitute about 82% of all 35 mm camera sales and a majority of camera revenue) and for amateur still film sales. These demand curves were used to estimate the tax revenue associated with potential 1% and 5% taxes.

Sales of still cameras, lenses, filters, tripods, and film to amateurs in 1980 were estimated at about \$2,531.0 million, in 1980 producer prices. Net sales of these products were estimated to decrease to about \$2,519.6 million if a 1% excise tax were levied. A 1% tax would yield potential revenue estimated at about \$25.2 million. Net sales were estimated to decrease to about \$2,482.0 million if a 5% tax were levied. A 5% tax would yield potential revenue estimated at about \$124.0 million. Of these amounts, about 45.6% was from photographic equipment and the remaining 54.4% from film. Table 2 and Figure 12 show potential tax revenue with 1% and 5% taxes.

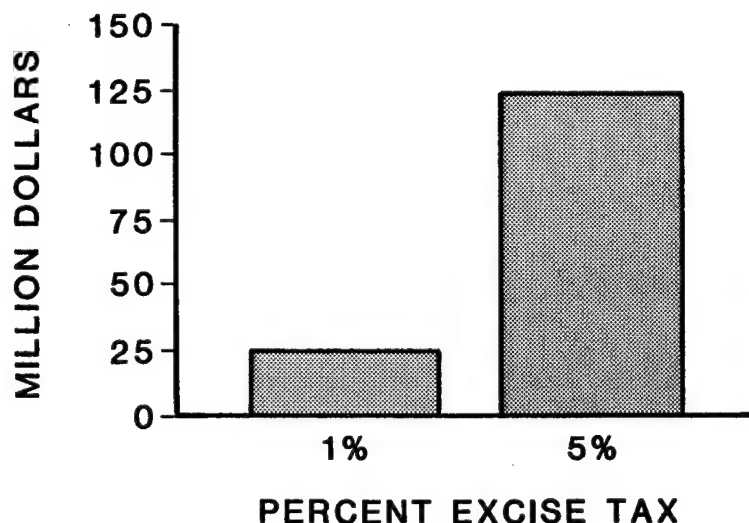


Figure 12. Potential revenue from excise tax on certain photo equipment and film, based on 1980 sales.

Increasing potential revenue was estimated for the year 2000 based on projected growth in demand for cameras and other photographic equipment. The projected growth in demand reflects the most likely projected growth in U.S. population (U.S. Department of Commerce 1982) and increasing real income projected by the Bureau of Economic Analysis (U.S. Department of Commerce 1981).

In 1980, imports of these products yielded duty of about \$52.9 million under existing tariffs, including duty from still cameras sold to professionals. Potential taxes of 1% and 5% would yield additional duty estimated at about \$6.5 and \$32.0 million, respectively. A portion of this potential duty, collected from sales to amateurs, was included in the potential revenue estimated above.

The demand for 35 mm cameras and film is relatively price insensitive; therefore, there would be little loss of economic efficiency due to a potential tax, even at the 5% level. Every dollar of potential tax revenue for cameras would involve an economic efficiency loss of only \$0.02 per dollar of tax revenue at the 5% tax rate. The loss in economic efficiency for film would be less than \$0.005 per dollar of tax revenue at the 5% tax rate. Expenditures on photographic equipment rise with age until the 35 to 44 age class and then fall after age 55. Expenditures on photographic equipment by persons 55 or older are about 25% to 30% below other age classes. In terms of income, a tax



on cameras and photographic equipment would be mildly regressive or nearly proportional. A potential tax on amateur film would be fairly regressive. In addition, a disproportionate amount of potential tax on film would be paid by persons in the 65 years and older category.

The benefits received by purchasers of cameras and equipment, excluding film, would be fairly strong. About 60% of the expenditures on cameras and photographic equipment, excluding film, are made by persons who have photographing wildlife as their primary or secondary purpose. Approximately 20% of these persons purchased the photographic equipment with photographing wildlife as one of their primary purposes (U.S. Department of the Interior and Department of Commerce 1982). The benefits received linkage would not be as strong for film. The results of a survey (Newsweek 1982b) of 35 mm camera owners indicated that 67% of them planned to take pictures of nature; 47% planned to take pictures of wildlife. Only 16% of film expenditures were primarily for photographing wildlife.

#### P. POTENTIAL ASSESSMENT OF CHARGES RELATED TO EXTRACTION OF CERTAIN LOCATABLE MINERALS

Potential funding from this source would be from a tax on certain locatable minerals extracted from Federal lands and waters where those rights are currently controlled by the Federal government. Locatable minerals are "hardrock" minerals, such as metallic deposits and most other nonfuel minerals. Most locatable minerals are mined under the Mining Law of 1872. This Law authorizes any person to enter public domain lands to explore for and mine valuable deposits of locatable minerals. Once claims have been established, the land is no longer under the control of Federal agencies. Production of locatable minerals on lands previously in the public domain may have yielded estimated revenues of \$120 million in 1980 if they were taxed at the same level as production from acquired land. This would increase to \$141.2 million in the year 2000, based on growth in U.S. population (U.S. Department of Commerce 1982).

Because exploration and depletion of locatable minerals is free from Federal regulation and taxation, economic inefficiencies may be introduced in two ways. First, the mining use receives a cost advantage to the extent that other uses of the same resource may be subject to a tax, fee, or regulation, and resources will be overutilized for mining relative to other potential uses. Second, some social costs such as reductions in environmental quality may be ignored. Economic efficiency can be improved if the potential taxes internalize these social costs into the economic decisions of mining firms.

The effectiveness of a potential tax in producing revenue for wildlife enhancement, and its relative economic efficiency, depend on the current tax structure, the form of the new tax proposal, and contemporary and intertemporal objectives. The likely effects of alternative tax formulations are displayed in Table 3 (Dasgupta and Heal 1979). Mining interests would receive only those benefits from wildlife enhancement received by any other citizen. The ability of people to pay a potential tax on locatable minerals depends somewhat

Table 3. Effects of alternative tax formulations on resource use patterns.

Type of tax	Distortions over time	Corporate effects	Consumer effects
<u>Sales Tax</u>			
Constant rate	Lower initial rate of extraction	Fraction of tax absorbed in lower value of deposits	Higher initial price to consumers
Exponentially rising rate	No distortion in pace of extraction	Full tax absorbed in lower value of deposits	Consumer price schedule unaffected
<u>Profits Tax</u>			
On profits only	No distortion in pace of extraction	Full tax absorbed in lower value of deposits	Consumer price schedule unaffected
On profits plus interest income	Slower pace of extraction	Reduced value of deposits	Higher initial price to consumers
<u>Royalty Tax</u>			
On production	Slower pace of extraction	Reduced value of deposits	Higher initial price to consumers

on the tax form chosen, as shown in Table 3. If corporations do not pass the increased cost on to consumers through higher prices, either profits or the value of mine deposits would be reduced, putting the burden of the tax on corporate owners and stockholders. In this case, a potential tax would be progressive, because stock ownership generally rises with higher income. If the potential tax is shifted to consumers, it would likely be regressive because the portion of household income spent on durable goods containing locatable minerals probably decreases as income rises.

The cost of locatable minerals used in the manufacture of most durable goods typically is a small part of the total cost of the good, and durable

goods make up a relatively small portion of consumer expenditures. This implies that a tax on locatable minerals generally would not be burdensome to consumers.

#### Assessment of \$10 and \$25 Annual Claim Renewal Fee

An annual fee for the renewal of claims also would be a potential source of revenue for State wildlife programs. Potential annual fees of \$10 and \$25 per claim were considered in this analysis. There were 1,206,678 unpatented claims of record at the end of fiscal year 1980 (U.S. Bureau of Land Management 1981). If a \$10 fee had been paid when filing the required annual affidavit of assessment work for each of those claims, about \$12.1 million would have been collected. If \$25 were paid for each claim, \$30.2 million would have been collected. Total claims and estimated potential revenue were assumed to be the same in 2000 as in 1980.

No price elasticity of demand information was available to estimate how an annual claim renewal fee would affect the total number of claims. Significant reductions in registered claims might be expected because the renewal fees of \$10 and \$25 would represent 10% and 25%, respectively, of the \$100 work a claimant must attest has been completed each year to maintain the claim. However, annual registration fees could be paid in lieu of exploration/development work currently required by work affidavits. The claim holder would not incur higher annual costs and claims would not be reduced as much in number, but a portion of the claimants' expenditures would be shifted from mineral development activities to wildlife enhancement.

#### Q. POTENTIAL EXCISE TAX ON TRAVEL TRAILERS AND CAMPERS

Potential funding from this source would be obtained by an excise tax on travel trailers, including conventional pull-type travel trailers (12 to 35 ft long), fifth-wheel travel trailers, park trailers, folding camping trailers (folding tent trailers) and truck campers, levied at the manufacturer/importer level. Tax rates of 1% and 5% were considered. Data from the Recreation Vehicle Industry Association for the years 1970 to 1982 were used to estimate demand equations for travel trailers, folding camping trailers, and truck campers. These equations were used to estimate potential revenue from these units. This revenue was added to estimates of revenue from other travel trailers to yield potential revenue estimates for this source.

Sales of travel trailers and campers in 1980 were estimated at about \$552.4 million, in 1980 producer prices. Net sales would decrease to an estimated \$534.4 million if a 1% excise tax were levied. A 1% tax would yield potential revenue estimated at about \$5.3 million in 1980. Net sales would decrease to an estimated \$460.0 million in 1980 if a 5% excise tax were levied. A 5% tax would yield potential revenue estimated at about \$23.0 million. Table 2 and Figure 13 show potential tax revenue with 1% and 5% taxes.

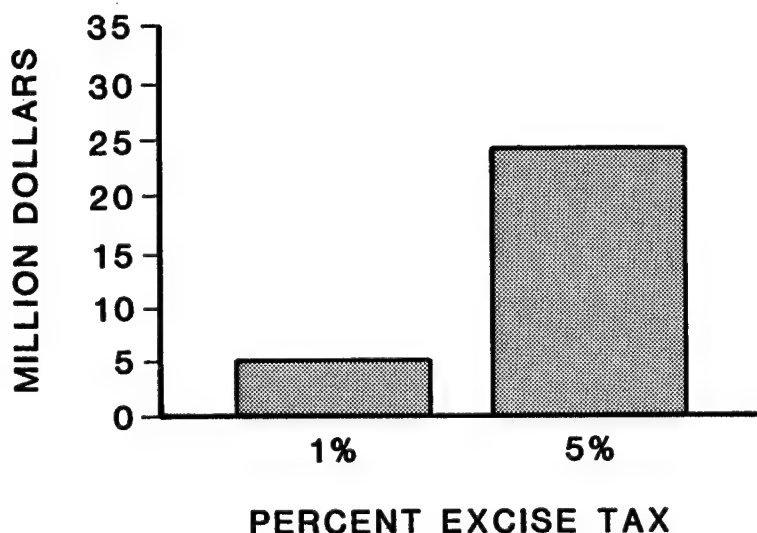


Figure 13. Potential revenue from excise tax on travel trailers and campers, based on 1980 sales.

Increasing potential revenue by the year 2000 was estimated based on growth in sales of travel trailers; decreasing sales were estimated for folding camping trailers and truck campers. No data were available on imports of travel trailers and campers. Few, if any, of these units are imported, according to industry sources.

Travel trailers, folding camping trailers, and truck campers show a fairly high degree of price sensitivity or price elasticity. The economic efficiency loss associated with a 5% tax would be quite high, averaging about \$0.10 of economic loss for each dollar of tax revenue gained. A 1% tax would have a much smaller excess burden (about \$0.02 per dollar of tax revenue).

A potential tax on these three items would be slightly regressive. Expenditures for travel trailers and campers are above average in the 35 to 44 and 65 plus age brackets.

In terms of benefits received, travel trailers, folding camping trailers, and truck campers are used 80% to 90% of the time for recreational purposes. Camping appears to be one of the major recreational uses of these items. About 10% of the people who bought or owned travel trailers, folding camping trailers, or truck campers did so with nonconsumptive use of wildlife as one of their primary purposes (Shaw and Mangun 1984).

## R. POTENTIAL EXCISE TAX ON MOTORHOMES

Potential funding from this source would be obtained by an excise tax on motorhomes, including Type A (conventional), Type B (van-camper), Type C (low profile), and Type D (compact) vehicles, levied at the manufacturer/importer level. Tax rates of 1% and 5% were considered.

Sales volume for the years 1970 to 1982 were estimated from data obtained from the Recreation Vehicle Industry Association. Although no statistically significant demand curve could be estimated, a statistically significant sales revenue estimating equation was developed. Potential tax revenue estimates were obtained by combining the revenue equation with a likely price elasticity figure. Motorhome sales in 1980 were estimated at about \$482.0 million, in 1980 producer prices. Net sales were estimated to decrease to about \$448.5 million if a 1% excise tax were levied. A 1% tax would yield potential revenue estimated at about \$4.5 million. Net sales were estimated to decrease to about \$390.0 million if a 5% excise tax were levied. A 5% tax would yield potential revenue estimated at about \$19.5 million. Table 2 and Figure 14 show potential tax revenue with 1% and 5% taxes.

Increasing sales and potential revenue were estimated for the year 2000, based on projected growth in U.S. population (U.S. Department of Commerce 1982) and real income (U.S. Department of Commerce 1981).

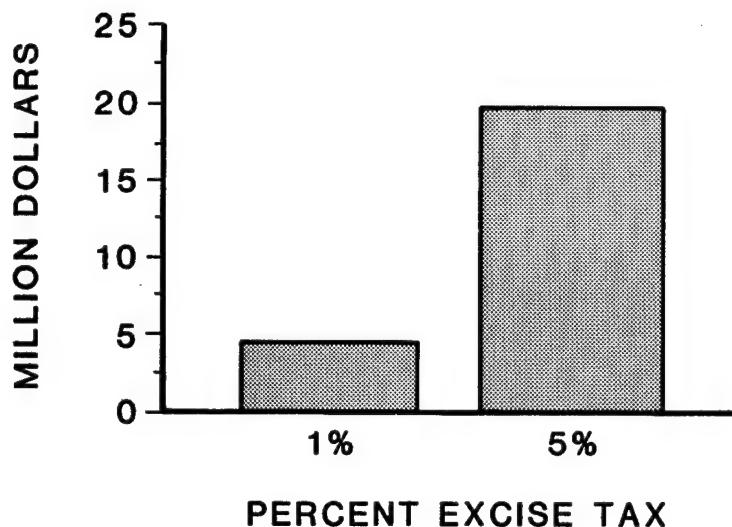


Figure 14. Potential revenue from excise tax on motorhomes, based on 1980 sales.

A small number of motorhomes may be imported. These vehicles, if any, would be imported principally from Canada and would be duty free under the Automotive Products Act of 1965. No data were available showing the number or value of these imports.

A fairly price sensitive or price elastic demand for motorhomes seems likely, based on the factors influencing the price elasticity of demand for motorhomes and estimated price elasticities for similar products (travel trailers). The economic efficiency effects of a 5% tax would be significant. The loss of economic efficiency could be as high as \$0.12 per dollar of tax revenue. The economic efficiency loss of a 1% tax would be only \$0.02 per dollar of tax revenue.

Small sample sizes in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982) and the U.S. Department of Labor (1978) Consumer Expenditure Survey did not allow a detailed analysis of how expenditures change with income and age. It appears that expenditures on motorhomes rise with income and that 44% of all motorhomes are owned by persons with incomes over \$25,000 (in 1980 dollars). Expenditures increase with age, up to the 55 to 64 age group. Expenditures by persons over age 65 are below average.

About 80% of the motorhomes are used for recreation. Camping makes up a large percentage of the recreational use. To the extent that States provide camping areas, there would be some benefits received linkage for motorhomes. The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior and U.S. Department of Commerce 1982) stated that 8% of the people who bought motorhomes indicated that the nonconsumptive use of wildlife was one of their primary purposes (Shaw and Mangun 1984), although this observation was based on a small sample size.

The absolute amount of tax paid per person buying a motorhome would be large at the 5% tax rate (about \$800 tax on a typical motorhome), compared to most other items being considered for taxation. However, motorhomes are used for several years. The potential annual tax would be about \$80, assuming motorhomes are used for 10 years (Summers pers. comm.).

#### S. POTENTIAL TAX OR FEE ON DEVELOPERS

During the consultation process, respondents suggested several additional potential funding sources. A contractor was hired to evaluate one of these sources, a potential developer tax or fee. Following is a summary of the contractor's analysis. The complete contractor's report is an addendum to the detailed report.

Funding from this source would be from a Federal tax or fee on selected types of development that take place on land managed by Federal agencies or land in which there is special Federal interest or involvement. Because the range of activities that can be labeled "development" is extremely broad, initial criteria were applied to narrow the universe of development activities to several candidates potentially suitable for the imposition of fees or taxes

for implementing the Fish and Wildlife Conservation Act. These initial criteria included: (1) special Federal interest or involvement in the activity (e.g., projects on Federal land or receiving Federal permits or aid); (2) wildlife linkage in terms of benefits received or habitat affected by the activity; (3) avoiding disruption of complex legislative or administrative arrangements; and (4) avoiding conflict with existing Federal mitigation policies.

From a larger list of suggested candidate development activities, three topics were selected for evaluation as potential funding sources:

1. Charges on Outer Continental Shelf and deep seabed nonfuel mineral extractions.
2. Charges on private developers of ski areas on Forest Service land.
3. Charges on non-Federal developers of power plants and transmission facilities on Bureau of Land Management and Forest Service lands.

#### Charges on Outer Continental Shelf and Deep Seabed Nonfuel Mineral Extractions

All of the leasing and royalties derived from mineral extraction on the Outer Continental Shelf have been for hydrocarbons. If commercially recoverable quantities of nonfuel minerals exist on the Outer Continental Shelf, their extraction could provide Federal revenues supplementing those now derived from oil and gas extraction. Because nonfuel minerals extraction is still in its exploratory phase, however, it is premature to place a dollar value on the resources or to project revenue yields. For purposes of comparison, it is noteworthy that royalty payments from Outer Continental Shelf oil and gas extraction average 16.7% of production value.

The effect of any future tax or royalty payment cannot be determined at this time. Economic efficiency effects could be similar to those reviewed under the section "Potential Tax on Certain Locatable Minerals", which deals with on-shore locatable minerals.

Wildlife linkage, although weak in terms of "benefits received", could be strong in terms of "habitat affected" because nonfuel mineral extraction could affect natural habitat both at extraction sites and at on-shore and near-shore support facilities. If charges attached to off-shore nonfuel mineral extraction were used to fund the Fish and Wildlife Conservation Act, off-shore extractors would be in a position somewhat analogous to that of Outer Continental Shelf oil and gas producers whose Federal payments are used, in part, to fund Federal Land and Water Conservation Fund grants to the States.

If nonfuel mineral extraction should prove commercially viable, royalty charges at any probable level are unlikely to have a significant impact on the mining of strategic minerals because of the high value of these minerals.

Deep seabed mining represents another, even more speculative, potential source of funding for the Fish and Wildlife Conservation Act. The Deep Seabed Hard Mineral Resources Act (1980) was intended to accelerate U.S. involvement in an international effort to explore the potential for the

recovery of nickel, copper, cobalt, and manganese resources from the deep seabed. The Act imposed a tax on the removal of hard mineral resources and established a revenue sharing trust fund intended for sharing with the international community, pending U.S. ratification of a deep seabed treaty. However, the law stipulated that Congress could determine the use of these monies if, within 10 years after passage of the Act, an international deep seabed treaty is not in effect. Because the U.S. has declined to be a signatory to the current version of the treaty, the disposition of any funds derived from commercial extraction of hard minerals rests with Congress.

Deep seabed mineral mining is just entering the pre-exploratory phase, although four U.S. consortia have spent, on the average, \$50 million each on "gearing up", even prior to receiving exploration permits. Assessments of resource value and potential revenues are purely conjectural at this point. Given the anticipated value of the resource, the impact on developers of a tax on strategic minerals extracted from the deep seabed is likely to be small.

#### Charges on Private Developers of Ski Areas on Forest Service Land

This potential funding source addresses the private development of downhill ski areas and related private businesses on land leased from the Forest Service.

Fifty percent, or 184 of the United States' downhill ski areas are located either partially or entirely on Federal lands (National Forests) administered by the Forest Service. Development of these areas, all privately constructed and operated, has required slope cutting, lift and lodge construction, building of roads and parking lots, and other construction activities. Operation of the ski area and associated concessions entails the sale of lift tickets and the operation of ski schools, restaurants, ski shops, and other skier-oriented facilities.

The Forest Service assesses a 2.5% to 3.5% fee on the gross revenue of ski area operations situated in the National Forests. Government or Forest Service revenues of \$9 million in the winter of 1983-84 are expected to rise to \$11.7 million in 1989-90. The generation of additional revenue would depend on the adoption of new revenue-raising mechanisms. Increasing the present fee to 4.5% could generate additional revenue of about \$3.0 million per year.

Additional fees might easily be accepted by the skiing public. Because skiing is a capital intensive sport requiring relatively expensive equipment, travel costs, and often lodging, in addition to lift tickets, it is generally considered an activity of upper and middle income persons. As long as an added charge or tax remains within reasonable bounds (relative to the larger overall cost of the total skiing experience), these income groups could presumably accept the added cost. In addition, the type of recreational activity supplied by downhill ski areas has few substitutes and may, therefore, be considered fairly inelastic.



Wildlife linkage appears strong. In terms of "benefits received", the ski area operator and the concessions associated with the ski area directly benefit from the attributes of the physical environment. Also, the development and operation of a ski area may result in significant environmental impacts.

#### Charges on Non-Federal Developers of Power Plants and Transmission Facilities on Bureau of Land Management and Forest Service Lands

Funding from this source might be based on: (1) a surcharge on the annual rental fees paid by utility companies to the Federal government; or (2) a one-time fee, analogous to a building permit fee, paid at the time of development.

Both the Bureau of Land Management and the Forest Service currently collect rental fees for rights-of-way across Federal lands. In recent years, there have been a number of siting and right-of-way proposals associated with the dramatic increase in domestic energy development and facility construction in the west, the vast majority of it on public lands managed by the Bureau of Land Management.

Under existing regulations, annual rental fees are based on the land's fair market rental value. Fee structures vary from State to State, but generally range from 4% to 6% of fair market value of the land used. Both the Bureau of Land Management and the Forest Service are currently reviewing their rental fee structures, focusing on alternative methods for determining fair market value as a basis for Federal charges.

Modest surcharges on present rental fees would yield amounts too low to warrant collection efforts. The average rental payment, for example, is only \$60, so surcharges of 1% and 5% would yield \$0.60 and \$3.00, respectively. Similar surcharges on all right-of-way fees received by the Bureau of Land Management in 1983 would have yielded \$19,424 and \$97,120, respectively, in additional revenues. If, however, rental fees were based on criteria other than fair market value (e.g., percentage of gross receipts of private utilities, and environmental transformation consequences), funding potential might be enhanced.

The economic efficiency of a surcharge on right-of-way rental fees can be evaluated in terms of its effect on: (1) the demand by private utilities for right-of-way permits; and (2) the demand by consumers for electric power. It is doubtful that a surcharge would have any effect on either demand, particularly under the present rental fee structure.

Wildlife linkage, although weak in terms of benefits received, is potentially strong in terms of "habitat affected". The construction and operation of power plants and associated rights-of-way can result in numerous impacts to wildlife habitat, and required mitigation efforts may not wholly compensate for those impacts.

## SUMMARY OF RESPONDENTS' VIEWS ABOUT THE POTENTIAL FUNDING SOURCES

The following analysis of respondents' views on the proposed funding sources was based on responses received during the formal comment period which ended January 12, 1984. Although numerous comments were received after this date, they did not significantly alter the positions represented by the earlier respondents. Data provided, regardless of the date received, were used in the study analysis whenever appropriate.

The comments received were grouped generally into four major categories, based on the affiliation of the respondent: (1) manufacturers' representatives, retail and trade associations, and consumer groups; (2) conservation organizations; (3) State fish and wildlife agencies; and (4) the general public. The respondents may not represent a random sample of the general public; thus, their views, described below, may not represent an unbiased sample of public opinion.

### GENERAL FUND

The proposal to fund the nongame program out of annual appropriations was one of only four potential revenue sources that received more favorable responses than negative responses. Many respondents who favored funding through annual appropriations indicated that it would be more equitable than most other alternatives because all citizens own nongame resources and, therefore, should pay for their management. Two large conservation organizations indicated that this source should be considered for full funding of the proposed program, with supplemental funding from other sources for special projects. However, many respondents who supported the general fund approach cautioned that such funding probably would vary because of competing demands for annual appropriations.

Opponents to the proposed use of annual appropriations for a nongame program fell into one of three categories: (1) respondents who supported the concept of a nongame program, but did not think the general fund accurately targeted the users; (2) respondents who did not support a nongame program and, consequently, saw no need for any tax; and (3) respondents who expressed support for the program, but did not believe that the general fund would result in a stable level of funding and, thus, should not be considered.

## WILD-BIRD SEED AND OTHER WILD-BIRD PRODUCTS

Responses to the potential excise tax on wild-bird seed, feeders, houses, baths, and bath heaters were combined because the respondents generally referred to several of these products, rather than just one. The responses received from wild-bird seed companies and manufacturers of wild-bird houses, feeders, and baths were, without exception, opposed to the proposed excise tax. However, some companies expressed support for the nongame conservation program and suggested funding from other sources.

Manufacturers of bird houses, baths, and feeders expressed the opinion that their products benefited birds and that persons who purchased their products already contributed to nongame programs. It was further suggested that a tax would add to prices that had already substantially increased in recent years, reducing sales and corresponding benefits to wildlife.

Private citizens who opposed excise taxes on wild-bird products almost without exception pointed out the benefits that result to birds because of their purchases and expressed dismay that they were being considered for additional taxes to pay for nongame programs. A number of respondents indicated they were retired, unemployed, or living on small fixed incomes.

Almost half of the positive responses came from conservation organizations and State fish and wildlife agencies. Other positive responses came from professional conservationists and concerned individuals willing to pay or from users of other commodities, such as off-road and recreational vehicles, who believed that users other than themselves should pay.

## WILD-ANIMAL FURS

The proposed excise tax on wild-animal furs prompted more responses within the comment period than did any other potential source. Opponents to the tax outnumbered proponents, but feelings of the respondents on both sides appeared to be very intense. The majority of respondents favoring the tax viewed trapping and trappers negatively and saw the tax principally as an opportunity to discourage or stop trapping, not as a means to raise revenue for a nongame program. These individuals encouraged the Fish and Wildlife Service to place higher taxes on furs.

The vast majority of opponents to the tax were trappers and trapping associations. These respondents viewed trapping as a legitimate outdoor activity, comparable to hunting and fishing. They also believed that the tax would reduce profits and limit the incentive to trap. Some trappers indicated that the cost of trapping licenses, excise taxes paid on firearms and ammunition, and sales taxes on traps and other supplies made trapping a marginal activity at best. Some respondents indicated that they were in a very low income bracket and that trapping provided an important source of supplemental income. A large number of trappers pointed out that, according to the Fish and Wildlife Conservation Act of 1980, furbearers were not considered nongame animals; therefore, a tax on furbearers would not be an appropriate source of revenue for a nongame program.

Most State fish and wildlife agencies and conservation organizations concurred with trappers that an excise tax on wild-animal furs was not an appropriate source of revenue for a program that would benefit nongame species.

#### BACKPACKING AND CAMPING EQUIPMENT

Respondents who opposed the proposed excise tax on camping and backpacking equipment far outnumbered those who favored the tax. Most opposition came from manufacturers, importers, and retailers and from camping and hiking associations. Individual negative responses included campers and backpackers, who often reflected one or more association positions.

Sellers, both retailers and manufacturers, expressed belief that the substantial export market for U.S.-made products would be negatively affected because the price of products would be increased by the tax to the point where they would no longer be competitive. Importers would be able to absorb the proposed tax more easily than U.S. manufacturers and would increasingly dominate the U.S. market. Furthermore, any increase in the manufacturing price would be passed on to the consumer, with a negative impact on the current economic recovery. The increase in price resulting from the proposed tax would give larger companies a competitive advantage over smaller ones. Finally, the administration of the tax would be costly to the industry.

Several sellers and the camping associations pointed out that the tax would adversely impact the camping and hiking public. Some opponents stated that the relationship between taxpayers and beneficiaries of the proposed nongame program would be tenuous because camping and backpacking equipment are not always used for recreational camping. Sleeping bags frequently are used in backyards or in the home. Campstoves, lanterns, and tent heaters often are purchased for emergency use. Daypacks and backpacks frequently are used as schoolbags or luggage. In addition, many campers who buy this equipment are hunters or anglers who already pay excise taxes related to their sport. The hiking association pointed out that money obtained from this tax would not be used to construct better trails, that hikers perform a lot of volunteer work, and that the taxes might discourage hiking and camping.

The proponents of an excise tax on camping and backpacking equipment generally indicated that campers and backpackers use wildlife habitat, and it is reasonable to expect them to support programs that protect and manage these resources. Proponents of this tax were mainly professional or amateur wildlife enthusiasts; managers or scientists; hunters, trappers, and anglers who stated that general recreationists did not pay their fair share; conservation organizations; and State fish and wildlife agencies.

#### OFF-ROAD VEHICLES

Respondents were opposed to the proposed tax on off-road vehicles by a margin of three to one. Manufacturers, dealers, manufacturing associations,

off-road vehicle clubs (snowmobiles, motorcycles, and four-wheel drives), and owners were the major groups that opposed the tax. Proponents of the tax did not belong to well-defined groups.

Snowmobilers indicated that there was no direct relationship between themselves and beneficiaries of the program and that sales of snowmobiles were depressed during the last 4 years. They stated that the proposed excise tax would threaten the industry's future. Manufacturers' representatives for all-terrain vehicles indicated that it would be difficult to expect buyers of these products to pay for nongame programs when nonrecreational purchases are about 30% of the total sales. Motorcycle manufacturers, dealers, and motorcycle clubs saw no link between recreational users of motorcycles and nongame programs. They pointed out that they were typically prohibited from using wildlife preserves and similar lands under State control. Foreign motorcycle manufacturers indicated that they already face 49.4% tariffs on heavyweight bikes.

Four-wheel drive manufacturers and user groups were also opposed to excise taxes on their vehicles. One manufacturing association provided detailed data indicating that four-wheel drive vehicles are used only infrequently off the road. The association pointed out that transportation census data indicated no significant difference in the use of four-wheel and two-wheel drive trucks. Therefore, they believed that there was no justification for the user charge principle. One large corporation indicated that a 2% to 5% tax would probably cause many consumers to reconsider their decision to buy a four-wheel drive vehicle.

Conservation groups did not favor a tax on off-road vehicles, but State fish and wildlife agencies did. One State agency pointed out, however, that they would decline the funds if the tax encouraged the opening of wildlife areas to off-road vehicle use. Other States, as well as some individuals, pointed out the adverse impacts of off-road vehicle use on wildlife and indicated that these impacts justified the proposed tax.

#### BINOCULARS, MONOCULARS, AND SPOTTING SCOPES

Respondents opposed to the proposed tax on binoculars, monoculars, and spotting scopes outnumbered those who were in favor of the tax. Respondents with negative views generally were of the opinion that most binoculars were not purchased for observing wildlife. Manufacturers and retailers generally expressed the view that the proposed tax would be inflationary, discourage sales, increase paperwork, and unfairly impact a particular socioeconomic segment of society.

About half of the positive responses came from conservation organizations and State fish and wildlife agencies. The remainder were from outdoor enthusiasts who were willing to support a nongame program.

## WILDLIFE IDENTIFICATION BOOKS

Slightly more respondents were in favor of the proposed excise tax on wildlife identification books than were opposed to the tax. Most conservation organizations did not comment on this proposed source, but the few that did were largely in favor of it. The State fish and wildlife agencies that responded endorsed the idea by a ratio of over four to one.

No well-defined constituency group was opposed to this potential tax source. However, responses from sources other than conservation organizations and States were slightly more opposed to the proposal than in favor. Although most respondents did not include a specific reason for their position, either pro or con, one respondent indicated that wildlife identification books probably provided an incentive to the public to "help" wildlife through increased public awareness.

## FEDERAL LAND USE FEES

Respondents were almost evenly divided for and against the proposed fee on recreational use of Federal lands. There was no well-defined constituency group on either side of the issue, except for one conservation association that was strongly opposed to the proposed tax as it applied to wildlife refuges. This association stated that this fee would place pressure on refuges to produce revenue to the detriment of wildlife resources. Some respondents questioned the administrative costs associated with the collection and management of an expanded fee system.

## VOLUNTEER TAX CHECKOFF

The volunteer tax checkoff was one of the four potential funding sources that respondents favored more than they opposed. It was the most favored of all alternatives. Although more State fish and wildlife agencies and conservation organizations favored this source than opposed it, support was cautious. The point was raised repeatedly that this funding source might compete with similar, on-going checkoff programs in a number of States.

This funding source was favored by many respondents because they believed that it targeted the user more accurately than any other potential funding source. However, a number of respondents were concerned that, if a nongame checkoff were enacted, other interest groups could insist that they also be given the opportunity to be included on the tax checkoff form.

## SEMIPOSTAL STAMPS

Semipostal stamps were considered favorably by more respondents than unfavorably. The main reason for this support was that sales of nongame stamps would be a voluntary measure that would accurately reflect a user-benefit relationship. Several respondents, including proponents, were

concerned that the administrative costs of printing and selling semipostal stamps would be so high that there would be little net revenue. Several respondents indicated that they anticipated relatively low sales of such stamps; others pointed out that semipostal stamps are successfully sold in other countries.

#### RECREATIONAL DIVING EQUIPMENT

The vast majority of respondents to the proposed excise tax on recreational diving equipment was opposed to the tax. Most of the negative replies were from retail diving equipment stores, manufacturers, and diving schools. However, conservation organizations also were decidedly opposed to the proposal, and State fish and wildlife agencies were evenly divided for and against the proposed tax. Manufacturers and retailers opposed to the tax generally expressed the opinion that it would place an unfair burden on their business, resulting in financial hardship, and that levying an excise tax at the manufacturer/importer level would result in a proportional increase in price at the consumer level that would result in reduced sales.

#### PHOTOGRAPHIC EQUIPMENT AND FILM

Negative responses to a proposed excise tax on photographic equipment and film outnumbered positive ones by over two to one. Most of the opponents indicated that wildlife photography was such a small part of the total use of photographic equipment that the tax would be inappropriate. One major manufacturing association indicated that two-thirds of their products were used by industrial and commercial customers and apparently would not be included in the proposed tax. The association stated that the tax would have a negative effect on sales of amateur-type photographic products because they are generally purchased with discretionary dollars. State fish and wildlife agencies and conservation organizations were slightly more in favor of this tax than against it.

#### LOCATABLE MINERALS

Opponents to the proposed excise tax on locatable minerals were only slightly more numerous than proponents. Proponents included several State fish and wildlife agencies, whereas most conservation organizations provided no specific response. Some proponents of the tax indicated that it was justified because of the potential negative impacts of mining on natural resources.

There apparently was considerable confusion about the definition of locatable minerals as it would relate to the tax. However, opponents generally concluded that: (1) the tax would bear no relation to the nongame program because there would be no user benefits; (2) the tax would be discriminatory because it would single out mining but exclude grazing, timber cutting, and

other uses of Federal land; and (3) the proposed tax would be an anticonservation measure because it would decrease the amount of ore that could be commercially mined.

One conservation association was strongly opposed to this tax because it would apply to refuges where it might encourage mining to the detriment of wildlife.

#### TRAVEL TRAILERS, CAMPERS, AND MOTORHOMES

Responses to a proposed excise tax on recreational vehicles and on camper trailers were combined because the comments on these products were similar. Opponents of these proposed taxes outnumbered proponents by a ratio of over four to one. Most of the negative comments came from the manufacturing industry, owners and users of recreational vehicles and camping trailers, and campground operators. The majority of State fish and wildlife agencies and conservation organizations also opposed this proposed excise tax.

Several manufacturers pointed out that it would be unfair to assume that all, or even a majority, of recreational vehicle use is in conjunction with outdoor camping activities associated with wildlife. Recreational vehicle manufacturers also pointed out that a flat tax would be unfair, because recreational vehicles and camper trailers often are quite expensive, compared to other recreational camping options.



## RECOMMENDATIONS TO CONGRESS

The legal provision which required this study also specified that the Director of the U.S. Fish and Wildlife Service would provide to the Congressional Committees his recommendations with respect to the study results. Responding to that requirement, his letter transmitting the study report to the Chairmen of the House Merchant Marine and Fisheries Committee and the Senate Environment and Public Works Committee stated as follows:

"Given the present fiscal situation and Administration policies on Federal spending and taxation, I cannot recommend either the raising of new taxes or appropriations from the general fund of the Treasury for financing the Nongame Act this year. The study does identify a method that would encourage voluntary contributions. That method would be the issuance of semipostal stamps as discussed on pp. 27, 28, and 115-117 of the report. However, the Postal Service points out significant problems with that method in their enclosed letter."

Page numbers in the above quotation refer to the full report which was transmitted to Congress. Summary information on semipostal stamps can be found on pages 13, 28-29, and 45-46 of the present report.

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APPENDIX. FEDERAL REGISTER ANNOUNCEMENT

# **federal register**

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**Friday  
October 28, 1983**

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## **Part III**

### **Department of the Interior**

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#### **Fish and Wildlife Service**

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**Study Concerning Potential Sources of  
Funding; Fish and Wildlife Conservation  
Act of 1980**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****Study Concerning Potential Sources of Funding; Fish and Wildlife Conservation Act. of 1980**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice.

**SUMMARY:** The Service is identifying and evaluating potential sources of revenue for funding the Fish and Wildlife Conservation Act of 1980. Sec. 12 of that Act instructed the Service to conduct a study to determine the most equitable and effective mechanism for funding the program and to provide the results along with the Director's recommendations to the appropriate Congressional committees by December 31, 1984. The purpose of this notice is to inform potentially affected parties and invite comments to be utilized in the study.

**DATE:** Comments should be submitted on or before December 12, 1983.

**ADDRESS:** Written statements should be addressed to the Associate Director—Federal Assistance, U.S. Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240. Comments received will be available for examination in Room 638, 1000 N. Glebe Road, Arlington, Virginia, between 7:45 a.m. and 4:15 p.m., Monday through Friday. Those persons desiring notification of receipt of comments must include a self-addressed, stamped postcard or use the U.S. Postal Service return receipt system.

**FOR FURTHER INFORMATION CONTACT:** Mr. C. Phillip Agee, (703) 235-1528, Division of Federal Aid, 1000 N. Glebe Road, Arlington, Virginia. Office hours for this location are 7:45 a.m. to 4:15 p.m., Monday through Friday.

**SUPPLEMENTARY INFORMATION:****Background**

The Fish and Wildlife Conservation Act of 1980 was enacted September 29, 1980. Its purpose is to provide grants to the States for developing State fish and wildlife conservation plans and for carrying out actions for the benefit of fish and wildlife, especially nongame species and populations. The term nongame is defined to include all unconfined, wild vertebrates which are not ordinarily taken for sport, fur, food, or commerce, are not listed as endangered or threatened under the Endangered Species Act of 1973, are not marine mammals under the Marine Mammal Protection Act of 1972, and are not domesticated species reverted to feral existence.

The Act authorized funding by appropriation for the first 4 years and provided for long-term funding by specifying in Sec. 12:

The Director of the United States Fish and Wildlife Service, in consultation with affected parties, shall conduct a comprehensive study to determine the most equitable and effective mechanism for funding State conservation plans and actions under this Act, including but not limited to, funding by means of an excise tax on appropriate items. On or before December 31, 1984, the Director shall report to the Committee on Environment and Public Works of the Senate and to the Committee on Merchant Marine and Fisheries of the House of Representatives the results of such study, together with his recommendations with respect thereto. (As amended December 31, 1982.)

**Study**

**Preliminary screening:** In 1975 an independent study was published analyzing potential excise taxes on 17 items or groups of items that could be applied to grants for nongame species and estimating the revenue each would yield (Wildlife Management Institute, 1975, "Current Investments, Projected Needs and Potential Sources of Income for Nongame Fish and Wildlife Programs in the United States." 93 pp.). Later, in hearings related to various pieces of proposed legislation for the benefit of nongame, additional sources were suggested in testimony before Congress. From these records, 25 potential sources of funding were selected for consideration in this study. In a preliminary screening, the Fish and Wildlife Service examined each of the 25 regarding: (1) The relationship between the potential contributors of the revenue and the beneficiaries of the program (i.e., Would program costs be paid by the users?); (2) the estimated amount of revenue to be generated each year and the portion of that amount which would be required to administer its collection; and (3) whether the potential revenue tended to be collected disproportionately from certain economic strata in the population. As a result of the screening, several of the 25 potential fund sources were modified or eliminated leaving 18 to be evaluated in detail. The 18 remaining sources being evaluated in this study are as follows:

1. Annual appropriation from the general fund.
2. An excise tax of 5 to 10% on wild-bird seed levied at the manufacturer/importer level.
3. An excise tax of 5 to 10% on wild-bird houses, levied at the manufacturer/importer level.

4. An excise tax of 5 to 10% on wild-bird feeders, levied at the manufacturer/importer level.

5. An excise tax of 5 to 10% on wild-bird waterers, baths, and heaters, levied at the manufacturer/importer level.

6. An excise tax of 5 to 10% on wild furs, levied at the point of their purchase from trappers.

7. An excise tax of 5 to 10% on backpacking and camping equipment (tents, flies, pack frames, packs, camp stoves, lanterns, tent heaters, camp cooking gear, sleeping bags and mattresses), levied at the manufacturer/importer level.

8. An excise tax of 2 to 5% on off-road vehicles (snowmobiles; off-road motorcycles, including trail bikes and three-wheelers; other all-terrain vehicles and four-wheel-drive vehicles), levied at the manufacturer/importer level.

9. An excise tax of 5 to 10% on binoculars, monoculars, and spotting scopes, levied at the manufacturer/importer level.

10. An excise tax of 5 to 10% on wildlife identification books, levied at the publisher/importer level.

11. Fees of \$.50 to \$2.00 (new fees or surcharges on existing fees) on the use of selected Federal lands and waters, including wildlife refuges, national parks, and areas managed by the Forest Service, Bureau of Land Management, Corps of Engineers, Tennessee Valley Authority, and Bureau of Reclamation.

12. Voluntary contribution by checkoff on the Federal income tax return (deductible the following year as a contribution).

13. Sale of semi-postal stamps for nongame, with the contribution being 25 to 50% of the postage value of the stamp.

14. An excise tax of 5 to 10% on recreational diving equipment (masks, snorkels, tanks and attachments, flippers, wetsuits, and spearguns), levied at the manufacturer/importer level.

15. An excise tax of 1 to 5% on photographic equipment and film (still cameras, lenses, filters, and tripods), levied at the manufacturer/importer level.

16. A tax of 1 to 5% on certain locatable minerals extracted from Federal lands and waters where those rights are currently controlled by the Federal Government.

17. An excise tax of 1 to 5% on travel trailers and campers, levied at the manufacturer/importer level.

18. An excise tax of 1 to 5% on motorhomes, levied at the manufacturer/importer level.

**Detailed evaluation:** Each of the 18 potential sources of funds will be evaluated critically. This detailed

evaluation will involve a more thorough application of the criteria used in the preliminary screening in addition to the following factors:

(1) The effect on sales of the commodity or service expected to result from the addition of a tax or fee to the percent cost.

(2) For purposes of revenue collection, the separability of the studied commodity or service from other

commodities or services on which a fee is not to be added.

(3) Changes in legislation and regulations that would be required in order to adopt and implement each potential surface of funds.

(4) The views of parties who may be affected (information to be derived largely from comments submitted in response to this notice).

*Report:* As required by the Act, the findings of this study, together with the

recommendations of the Director, will be delivered to the Chairman of the House Committee on Merchant Marine and Fisheries and the Chairman of the Senate Committee on Environment and Public Works on or before December 31, 1984.

Dated: October 24, 1983.

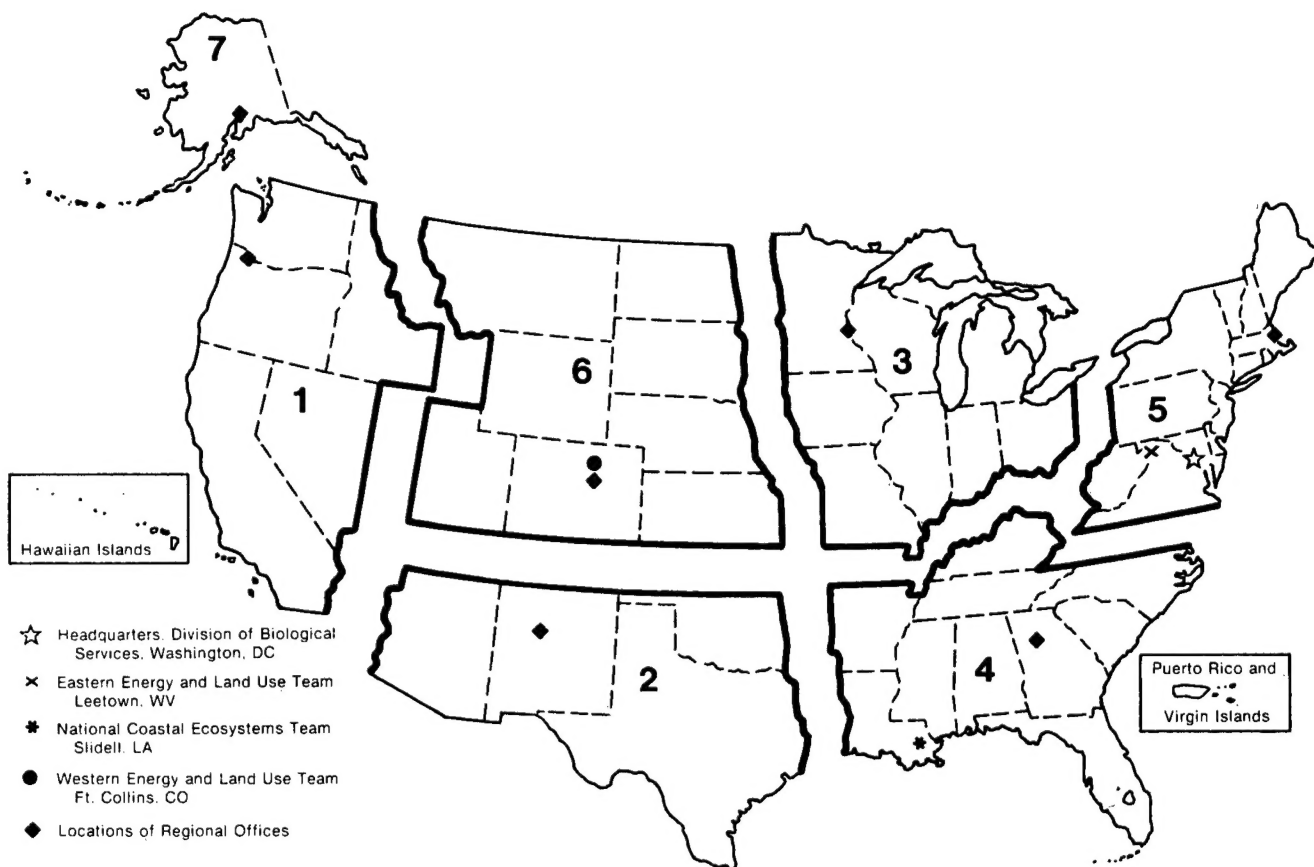
**Robert A. Jantzen,**  
*Director, Fish and Wildlife Service.*

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<b>REPORT DOCUMENTATION PAGE</b>	<b>1. REPORT NO.</b> Biological Report 85(4)	<b>2.</b>	<b>3. Recipient's Accession No.</b>
<b>4. Title and Subtitle</b> Summary of the report and recommendations on funding sources to implement the Fish and Wildlife Conservation Act of 1980		<b>5. Report Date</b> December 1984	
<b>7. Author(s)</b> Olson, Rodney W., John B. Loomis, Richard L. Johnson, Charles A. Segelquist, Spencer R. Amend, Gerald C. Horak, and Molly Whitworth		<b>8. Performing Organization Rept. No.</b>	
<b>9. Performing Organization Name and Address</b> Western Energy and Land Use Team U.S. Fish and Wildlife Service 2627 Redwing Road Fort Collins, CO 80526-2899		<b>10. Project/Task/Work Unit No.</b>	
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		<b>14.</b>	
<b>15. Supplementary Notes</b>			
<b>16. Abstract (Limit: 200 words)</b> This document summarizes a more detailed report on a study, plus associated recommendations provided to the U.S. Congress by the U.S. Fish and Wildlife Service, as required by Section 12 of the 1980 Fish and Wildlife Conservation Act, Public Law 96-366 (Forsythe-Chafee Act). The detailed report is entitled, "Potential Funding Sources to Implement the Fish and Wildlife Conservation Act of 1980," U.S. Fish Wildl. Serv. Biol. Rep. 85(5).  The purpose of this study was to develop information and data for determining, in consultation with potentially affected parties, the most equitable and effective mechanism for funding grants to States for nongame programs. Congress specified that this study include, but not be limited to, funding by potential excise taxes on appropriate items.			
<b>17. Document Analysis a. Descriptors</b> Fishes Wildlife Taxes  <b>b. Identifiers/Open-Ended Terms</b> Fish and Wildlife Conservation Act Funding Excise taxes Nongame  <b>c. COSATI Field/Group</b>			
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## **DEPARTMENT OF THE INTERIOR**

### **U.S. FISH AND WILDLIFE SERVICE**



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.